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FINAL

299 SECOND STREET

ENVIRONMENTAL IMPACT REPORT

FINAL EIR



ARCHITECTURAL RENDERING
OF THE PROPOSED BUILDING
299 SECOND STREET

299 SECOND STREET, SAN FRANCISCO, CALIFORNIA
PROJECT NO. 299-000000-0000-0000-0000-0000-0000-0000
PROJECT NO. 299-000000-0000-0000-0000-0000-0000-0000

PREPARED BY: [Faint text]
DATE: [Faint text]

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299 SECOND STREET

FINAL ENVIRONMENTAL IMPACT REPORT

83.311E

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Changes from the text of the Draft EIR are indicated by solid dots (●) at the beginning of each revised sentence, paragraph, section, graphic or table.

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I. SUMMARY

A. PROJECT DESCRIPTION

The proposed office/retail complex is located on Assessor's Block 3736, Lots 27, 29 and 35 on the northeast corner of Second and Folsom Streets. The site is in a C-3-0 (SD) district, south of Clementina Street. The site is currently developed with two structures and two parking lots. Both structures would be demolished and replaced with the proposed project.

The project sponsor, 299 Second Street, proposes to construct a 16-story, 200-foot-tall office building, with ground level retail/restaurant space. The new building would contain an arcade on three of its sides, an outdoor seating area, ground-level retail/restaurant space, and offices, occupying a total floor area of 329,075 gross square feet (gsf). Office space would occupy 267,760 gsf and 15,580 gsf would be devoted to restaurant/retail uses. This represents a net increase of approximately 232,760 gsf of office space, 3,630 gsf of restaurant space, and 10,000 gsf of retail space on the site. The project would include 45,735 gsf of parking space (131 short-term independently accessible parking spaces) on two basement levels. Seven percent of the gross square feet total ($7\% \times 329,075 = 23,035$) would be allowed as accessory off-street parking and the remaining 22,740 gross square feet of parking would require Conditional Use authorization. The project includes 16,435 gsf of excludable ground floor and open space uses. Both accessory off-street parking and groundfloor uses and open space would be excluded from FAR calculations resulting in a proposed Floor Area Ratio of 9.4:1. Transferable Development Rights would be included as part of the project. The project would include three full-size loading docks and two service vehicle spaces, thus conforming with the Planning Code. Construction is expected to occur over an 18-month period beginning in June 1985 and ending in January 1987 (page 19).

B. ENVIRONMENTAL IMPACTS

1. Initial Study

An Initial Study was prepared for the 299 Second Street project to identify potential environmental issues resulting from the proposed project; these issues are covered in this EIR. Certain potential environmental issues were determined to be insignificant and are therefore not addressed in this EIR. These include: Light and Glare; Operational Noise; Project-Related Air Quality Impacts and Impacts from Odors/Burning of Materials; Utilities and Public Services (with the exception of Fire Protection Services); Geology/Topography; Water; Hazards; Cultural Resources and Biology. A copy of the Final Initial Study is attached to this report as Appendix A, page A-1.

2. Land Use and Zoning

The proposed project is within a 200-S height and bulk district and a C-3-0(SD) zoning district. The 200-foot-tall building would comply with height requirements of the ● Planning Code. The project would require Conditional Use authorization for exceptions to ● bulk requirements of the Planning Code. The project would contribute cumulatively to new and proposed development in the project area (page 57).

3. Urban Design and Visual Quality

The proposed project would have an arcade wrapping around the building on Folsom, Second and Clementina Streets. The building would contain 16 floors, reaching a maximum height of 200 feet. The 50-foot-high base would be about the same height as the four-story building to the west, across the street from the site. The 16-story building would be similar to other highrises in the South of Market Street area either under review, approved or under construction. The degree of view blockage would vary considerably with changes in elevation and observer location with respect to the project. The office tower would be expected to most directly affect views of the downtown from office buildings south and southwest of the project site (page 74).

4. Shadow and Wind

a. Shadows

Project shadows would most affect the pedestrian environment between 10 a.m. and ● 3 p.m. throughout the year. At various times, shadows would be cast on portions of Second

and Clementina Streets. Many of the project's shadows would fall on areas shadowed by existing development or buildings under construction, and would thus not substantially increase shadowed areas. The project would not cast shadows on any public open space under the jurisdiction of, or open space proposed for acquisition by, the Recreation and Park Commission; therefore, the provisions of Proposition K, the Park Shadowing Initiative Ordinance, would be satisfied (page 75).

b. Wind

- A wind tunnel test of the project vicinity indicates that existing winds would not exceed the 11 mph pedestrian comfort criterion established in the Downtown Plan. The project would cause wind speeds to increase at one of the 23 sidewalk locations monitored (by one mph), to decrease at 10 locations (by between one and two mph), and to remain the same at 12 locations. Within the outdoor eating and sitting areas along Second Street and Folsom Street winds would range from five to six mph, below the 7 mph criterion of the Downtown Plan. Neither existing winds nor winds with the proposed project would exceed the pedestrian hazard criterion (page 81).

c. Skyplane Studies

Two skyplane analyses were conducted, one on the west side of Second and one on the north side of Clementina Street opposite the site. Sunlight reduction would not occur at any time of the year at the Second Street location. At the Clementina Street location, morning sunlight would be eliminated before 11 a.m., and afternoon sunlight would not be affected (page 82).

5. Architectural and Historic Resources

The proposed project would require demolition of two buildings recently rated "C" by Heritage: 590 Folsom (Lot 27) and 299 Second Street (Lot 29) (page 85).

6. Transportation

The proposed project would generate about 6,185 net new daily person trips to and from the site, with about 514 outbound trips occurring during the p.m. peak hour. The p.m. peak-hour person trips would be segmented as follows: 146 vehicle-person trips, 100 Muni trips, 96 BART trips, 66 trips on other transit systems and 106 pedestrian or other mode trips.

Discounting the project's pedestrian trips, the project would increase the existing peak-hour travel (in and out of the downtown). Pedestrian flow regimes would remain the same on sidewalks and crosswalks adjacent to the project site with the exception of the Second

Street sidewalk and Folsom Street crosswalk which would degrade slightly from open to unimpeded.

The project would generate a net increased parking demand for about 95 spaces. The project's 131-space garage would increase on-site parking by about 57 spaces. Project generated transportation impacts would include 96 peak hour vehicles which would increase peak hour traffic volumes at Second/Howard by 4% and Second and Folsom by 4%. Regional auto traffic in the various corridors would increase by 0.1%. Transit peak hour ridership would increase between 0.1-0.4% of the total demand on individual transit carriers in the year 2000. The project provides 3 off-street freight loading spaces and 2 service/maintenance spaces.

7. Cumulative Air Quality

No violations of the state and federal eight-hour average carbon monoxide (CO) standards for vehicular emissions generated by the proposed project would occur at Howard and Second, Folsom and Second, and Folsom and First Streets. Regionally, impacts would be due to the vehicle miles traveled (VMT) associated with the project. The project itself would increase vehicular emissions by a small amount. This would not result in increased ozone concentrations in the Bay Area, but could lead to increases in ozone further downwind (page 116).

8. Noise

During the majority of construction activity, noise levels would be at or below existing traffic noise levels in the area.

Construction activities would be noisiest during framing operations. Noise from impact wrenches would affect Second and Folsom Street office buildings as well as residences and warehouses in the immediate vicinity of Second and Folsom Streets. No audible increase in traffic noise would result from operation of the proposed project (page 146).

9. Energy

The total estimated annual energy use within the proposed project (based upon other City projects and Title 24 compliance) would be 51 billion Btus, or approximately 8,980 barrels of oil (page 126). The total estimated energy consumption for construction would be about 44 billion Btu or about 7,800 barrels of oil. Total transportation energy consumed by the project would be about 4.3 billion Btus, the equivalent of 800 barrels of oil (page 132).

10. Employment and Housing

At full operation, the project would provide 1,053 permanent jobs for office, retail and janitorial/service functions, resulting in a net new increase of 949 permanent jobs on the site. Approximately 4,050 jobs in the Bay Area would be indirectly created through the multiplier effect. Based on the Office Affordable Housing Production Program (OAHPP) formula, the project would generate demand for 90 units (page 134).

11. Cumulative Fire Services

The proposed project would contribute to the cumulative demand for fire protection services in the downtown area. However, the increase in fire incidents from 1984 to 2000 would be less than 1% due to the effectiveness of the San Francisco and State Life Safety code provisions. The Fire Department anticipates that no new equipment or specialized staff would be needed to meet the demands identified for the C-3 District (page 152).

C. MITIGATION MEASURES

MITIGATION MEASURES INCLUDED AS PART OF PROJECT

- o Notification to and coordination with the Environmental Review Officer and the President of the Landmarks Preservation Advisory Board if evidence of significant cultural or historic artifacts are found during project excavation (page 155).
- o Provision of secure bicycle storage facilities for commuters and short-term visitors relative to demand if demand for such facilities is greater than the number required by code (page 156).

- o Placement of paving, landscaping or structures in the sidewalk area in such a way as to minimize interference with pedestrian traffic (page 156).
- o Control of off-street parking spaces to assure priority for vanpool and carpool vehicles and vehicles driven by the physically handicapped (page 156).
- o Coordination of project with construction contractors for any concurrent projects to minimize cumulative traffic impacts due to lane closures and street excavation (page 156).
- o Specification in the construction contract that construction equipment would be muffled to not exceed City Noise Ordinance limits (page 157).
- o Mechanical sweeping of adjacent streets by project contractor during excavation to prevent siltation of storm drains (page 159).
- o Assessment of actual trip-generation patterns of project occupants and actual pick-up and drop-off areas for carpools and vanpools within a year of the project's full occupancy. This information would be made available to the Department of City Planning (page 156).
- o Limiting construction truck movement to the hours between 9 a.m. and 4 p.m. during the construction period to minimize traffic conflicts (page 156).

MITIGATION MEASURE NOT INCLUDED IN THE PROJECT

- o The project sponsor is considering various energy-saving devices (e.g. solar water heating, increased daylighting). Final decisions would be made on the basis of life cycle costing and compatibility with the overall design (page 158).

D. ALTERNATIVES

1. No Project

This alternative would involve no change to the project site as it now exists. No environmental impacts associated with the proposed project would occur. The project sponsor has rejected this alternative because none of the development objectives would be met (page 162).

2. Mixed-Use With Residential

The 345,500-gsf alternative would have the same exterior design as the proposed project except that it would not contain a greenhouse or an outdoor seating area.

It would contain 8,500 gsf of retail space, 200,000 gsf of office space, 77,000 gsf (154 units) of residences, and 60,000 gsf of parking on two basement levels, with a 10.2:1 FAR.

Visual, shadow, wind, architectural and historical, and noise impacts would be about the same as for the proposed project.

This alternative would generate 21% fewer new daily trips and 33% fewer new p.m. peak-hour outbound trips than the proposed project. Regional air quality impacts would be less than the proposed project; energy impacts would be greater. This alternative would have fewer employment impacts than the proposed project because of the decrease in office space. The sponsor rejected this alternative because a mixed-use residential project would not meet the objectives of providing a major retail and office mixed-use project on the site. Also, in the sponsor's opinion, this alternative would not be compatible in land use with adjacent existing and proposed buildings (page 163).

3. Mixed-Use Light Industrial

This alternative would contain an FAR of 6:1 and have a total floor area of about 185,160 gsf. The 12-story building would be 140 feet tall (60 feet shorter than the proposed project) and would contain 30,000 gsf of light industrial space and 155,160 gsf of offices. There would be 12,960 gsf of parking, or about seven percent of the total gross floor area.

Visual, shadow and wind impacts would be reduced proportionately as the building would be 60 feet shorter than the 200-foot proposed project. Elimination of retail/restaurant uses, addition of light industry and reduction in office space (by about 42%) would result in lower levels of employee-related impacts, traffic generation, parking and transit demand. This alternative would generate 65% fewer new daily trips and 55% fewer new p.m. peak-hour outbound trips than the proposed project.

The project sponsor rejected this alternative because it would not meet the development objectives of providing a mixed-use retail and office building and would preclude development of on-site retail and restaurant uses. In addition the sponsor rejected this alternative because office space lease rates have to be increased to support the light industrial uses, thereby reducing marketability of office space (page 165).

4. No Exceptions to the Downtown Plan

- This alternative would consist of a 16-story 200-foot building that would respond to the Planning Code and feature many of the bulk, setback, design and other building characteristics of the proposed project. No Transferable Development Rights would be used.

The base FAR for this alternative would be 6:1. Total gross floor area would be 195,340 gsf with 180,340 gsf of office space, 9,500 gsf of retail, 5,500 gsf of restaurant space and 12,974 gsf of parking (7% of total gross floor area).

- Visual, shadow and wind impacts would be reduced proportionately as the upper portions of the building would be more slender (approximately 46% less gross floor area per floor in floors 4 through 15) than the proposed project. Architectural, historical and noise impacts would be the same as for the proposed project. Applying the OAHPP formula for computing the housing requirement, this alternative would generate 120 housing credits, 87 fewer than the 207 calculated for the proposed project.

This alternative would generate 27% fewer new daily trips and 29% fewer new p.m. peak-hour outbound trips than the proposed project. The 91 peak-hour trips would increase nearby intersection traffic by about 2% and would not be measurable within typical daily

traffic fluctuations. This alternative would add about 0.1-0.3% to the total projected downtown Muni patronage levels; this increase would not be discernable by Muni patrons. With this alternative, peak-hour BART patronage would increase by about 0.1%, and load factors would not be measurably increased. This alternative's total parking demand would be about 122 spaces, 52 less than the proposed project.

Regional air quality impacts would be slightly less than for the proposed project; local air quality would be about the same. Energy consumption would be decreased. Employment-related impacts of this alternative would be less than for the proposed project, because the overall reduction in office gross floor area would provide fewer jobs.

This alternative was rejected by the project sponsor because it would not meet the objectives of maximizing the site's potential by developing a first-class mixed-use retail and office project through the use of Transferable Development Rights. In the sponsor's opinion, use of TDRs to allow additional office space would be the only economically feasible way to provide ground floor uses and other amenities that are typical of first-class mixed-use projects (page 166).

II. PROJECT DESCRIPTION

A. SPONSOR'S OBJECTIVES

The project sponsor, 299 Second Street, a California General Partnership, proposes to construct a 16-story, 200-foot tall, 329,075 gross square foot mixed-use office building. Its ground floor would be used as retail and restaurant space, with the restaurant space serving both the local office and pedestrian population. The project sponsor intends to develop an energy-efficient building that would conform to the provisions of the Downtown Plan, achieve a reasonable return on investment, and provide office, retail, restaurant and open space areas for workers in the project vicinity.

B. LOCATION OF THE PROJECT SITE

The project site is located on Assessor's Block 3736, Lots 27, 29 and 35. The site is in the South of Market area on the northeast corner of Second and Folsom Streets, south of Clementina Street (Figure 1, page 11). Under Downtown Plan interim controls adopted by the City Planning Commission on November 29, 1984 (Resolution No. 10166), the project is in a C-3-0 (SD) zoning district; has a permitted Floor Area Ratio (FAR) of 6:1; and is located in a 200-S height and bulk district. The maximum dimensions of an "S" bulk district allow full site coverage up to 100 feet in height (an amount equivalent to 1.25 times the width of the widest street adjacent to project site); between 100 and 160 feet in height, the maximum permitted building width is 160 feet and the maximum permitted diagonal dimension is 200 feet. Above 160 feet, the maximum permitted building width is 140 feet, and maximum average diagonal dimension is 160 feet.

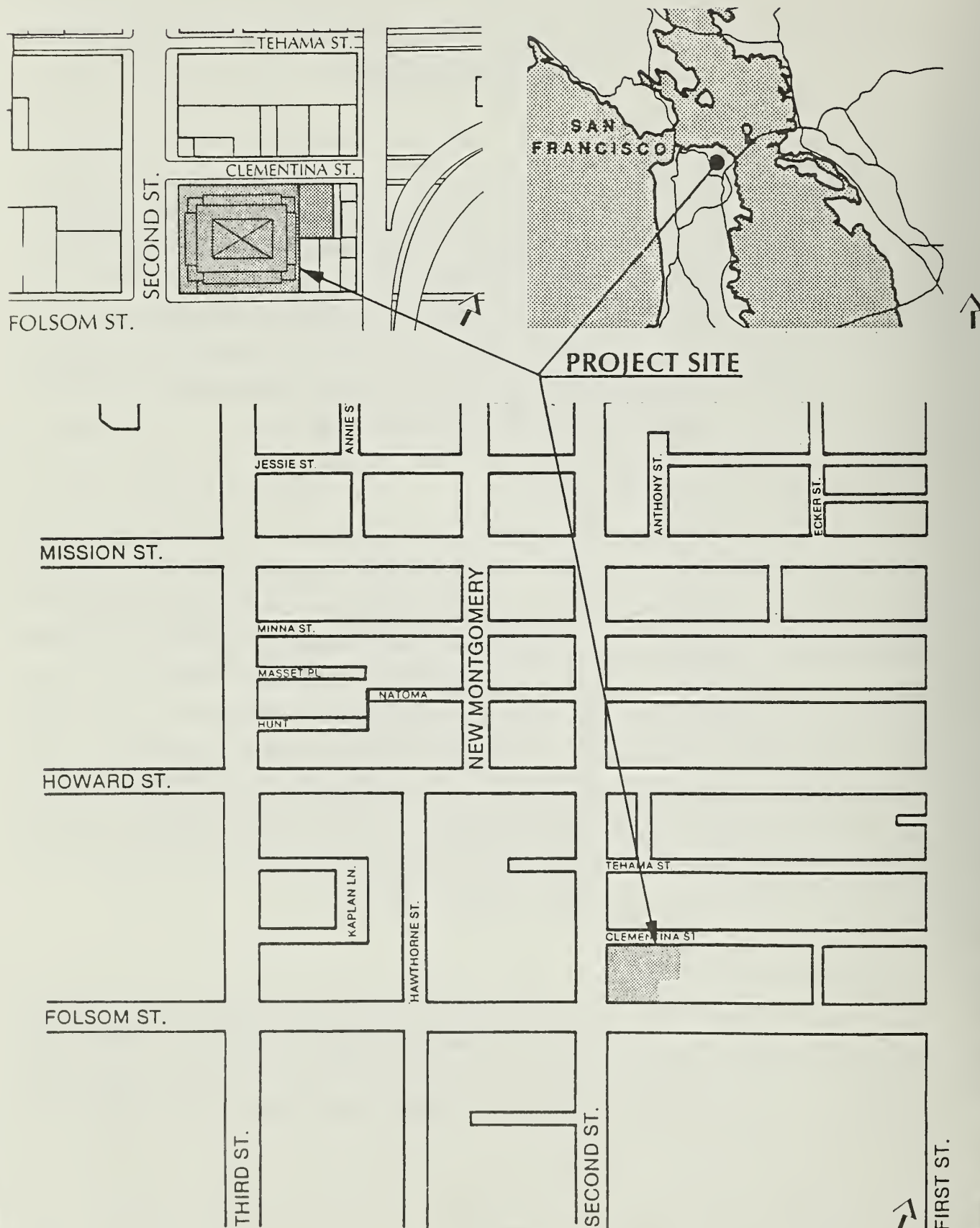
C. EXISTING ON-SITE USES

The project site includes three lots with a total area of about 30,890 square feet (see Figure 8, page 22). Lot 27 (590 Folsom Street) contains a three-story concrete office building. Lot 29 (299 Second Street) contains a two-story wood-frame building with offices above a ground-floor restaurant. Office uses in these two buildings total

SITE LOCATION MAP

FIGURE 1

SOURCE: EIP CORPORATION



approximately 35,000 gross square feet (gsf); restaurant uses total 1,950 gsf; no retail uses exist. There are also 52 long-term marked parking spaces on Lot 29, and 22 long-term spaces located partially on Lot 35 and partially on the northeastern portion of Lot 27 abutting Lot 35. Access to both parking lots is from Clementina Street. The three-story concrete building (590 Folsom), formerly the Bothin Realty Building, and the two-story building at 299 Second Street, have both been rated "C" by the Heritage expanded architectural survey.¹ There is no Department of City Planning rating for either building. Both buildings would be demolished prior to project construction.

D. PROJECT CHARACTERISTICS

The project would entail demolition of the existing development followed by construction of a 16-story, 200-foot tall office/retail structure with a four-story (50-foot) base, a 9-story (112-foot) lower tower, a three-story (38-foot) upper tower, a mechanical penthouse level (28 feet) and a 53-foot high spire located on Lots 27, 29 and 35, Assessor's Block 3736. The project would contain two basement levels (45,735 gsf) of short-term parking with approximately 131 spaces, independently accessible from Clementina Street, representing a net increase of 57 parking spaces on the site. The new building, which includes office restaurant, and retail space, a greenhouse, outdoor seating, an arcade, lobby and mechanical space, would contain approximately 329,075 gsf, with about 267,760 gsf of office, 5,580 gsf of restaurant and 10,000 gsf of retail uses, 6,435 gsf of open space and 45,735 gsf of parking space. This represents a total of 3,630 gsf of net new restaurant space, 10,000 gsf of net new retail space, and 232,760 gsf of net new office space, with a FAR of 9.4:1. Transferable Development Rights would be used to increase the FAR above the 6:1 base FAR allowed for the project site. The main entrance to the building would be centrally located off Second Street, and a secondary entrance would be located off Clementina Street. Upper floors (3rd through 16th levels) would contain offices, terminating in a 17th-floor, peaked-roof mechanical penthouse level.

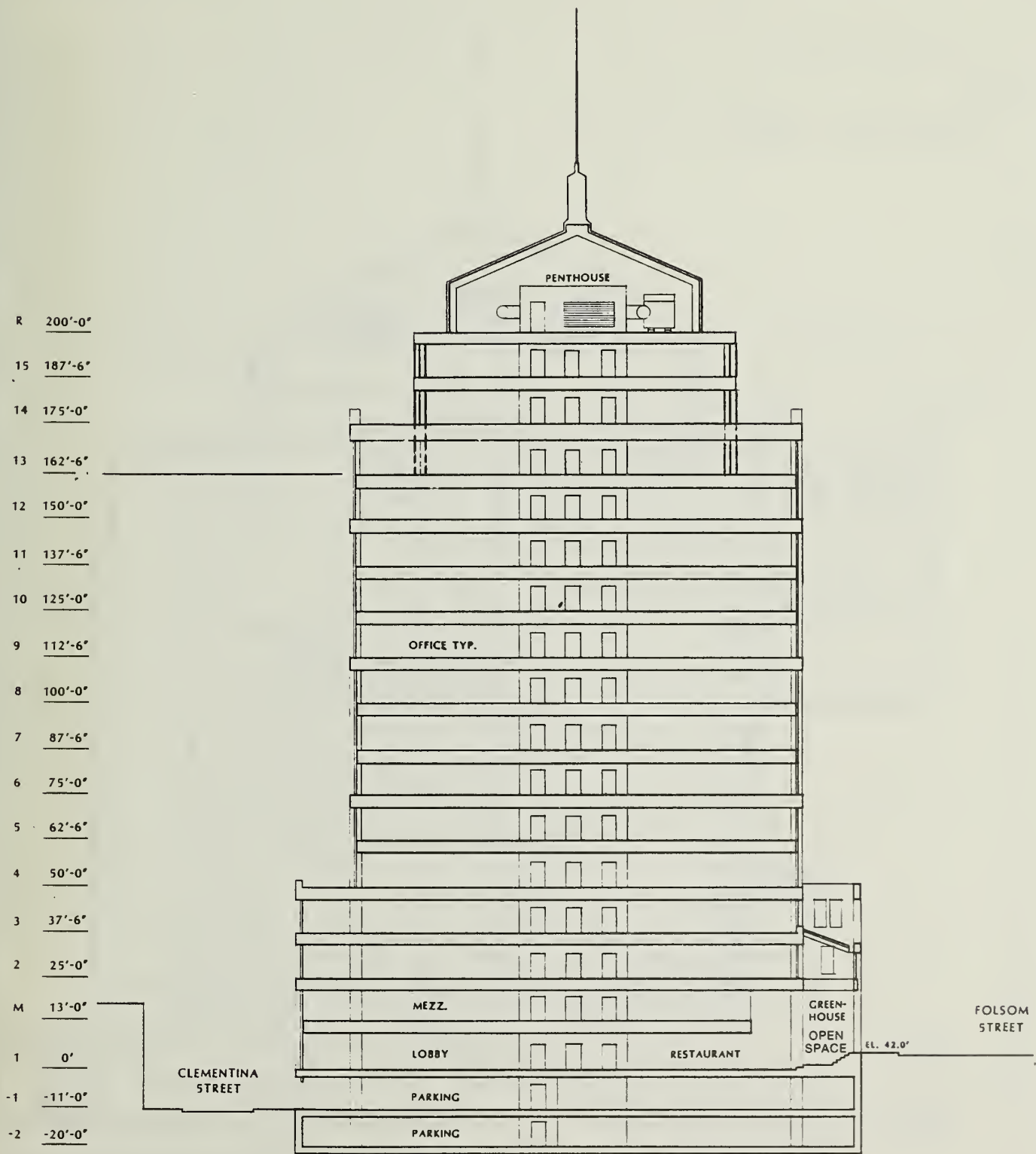
A greenhouse with seating would be accessible from Folsom Street at the site's southeast corner. Outdoor seating would be located at the site's southeast corner, at Second and Folsom Streets. Access to the building on the Second Street side features open space and landscaping Figures 2 through 7, pages 13 to 18).

- During the construction period, the project sponsor would initiate a series of steps to reduce traffic congestion in the project vicinity, especially on Clementina Street, subject to agreement by the Department of City Planning, Department of Public Works, MUNI, the City Fire Department, the building contractor, and adjacent property owners. These steps would be included as part of the conditions of project approval.
- The project sponsor would also retain a qualified Dust Control Coordinator (DCC) to manage offsite particulate matter emissions during the construction period.⁴ The DCC would file a Dust Control Management Plan (DCMP) with the City outlining specific actions to be taken to minimize emissions in the event of an offsite emissions complaint. This project feature would also be included as part of the condition of project approval.

SECOND STREET ELEVATION PLAN

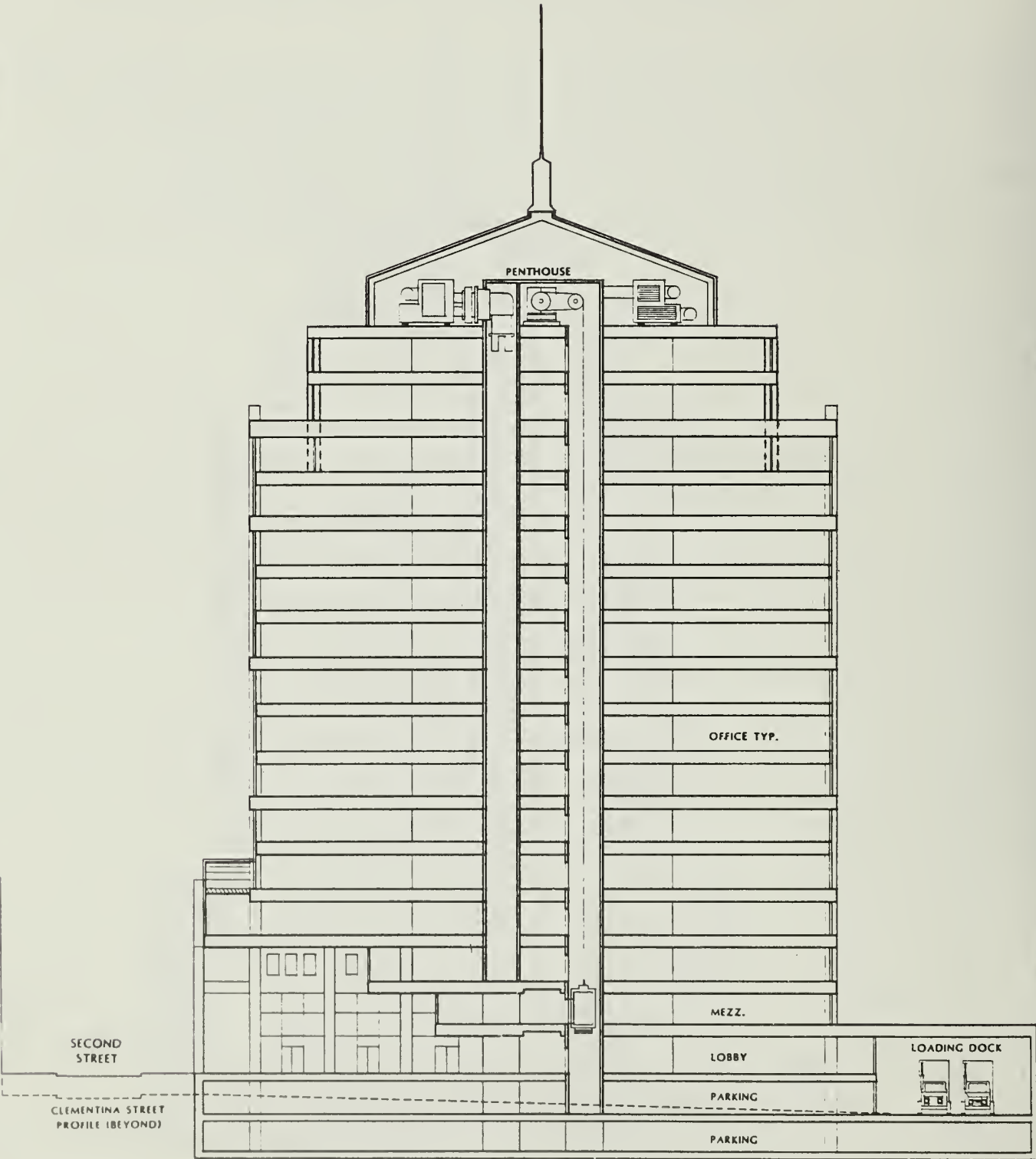
FIGURE 2

SOURCE: KAPLAN/McLAUGHLIN/DIAZ



TRANSVERSE SECTION

SOURCE: KAPLAN/McLAUGHLIN/DIAZ

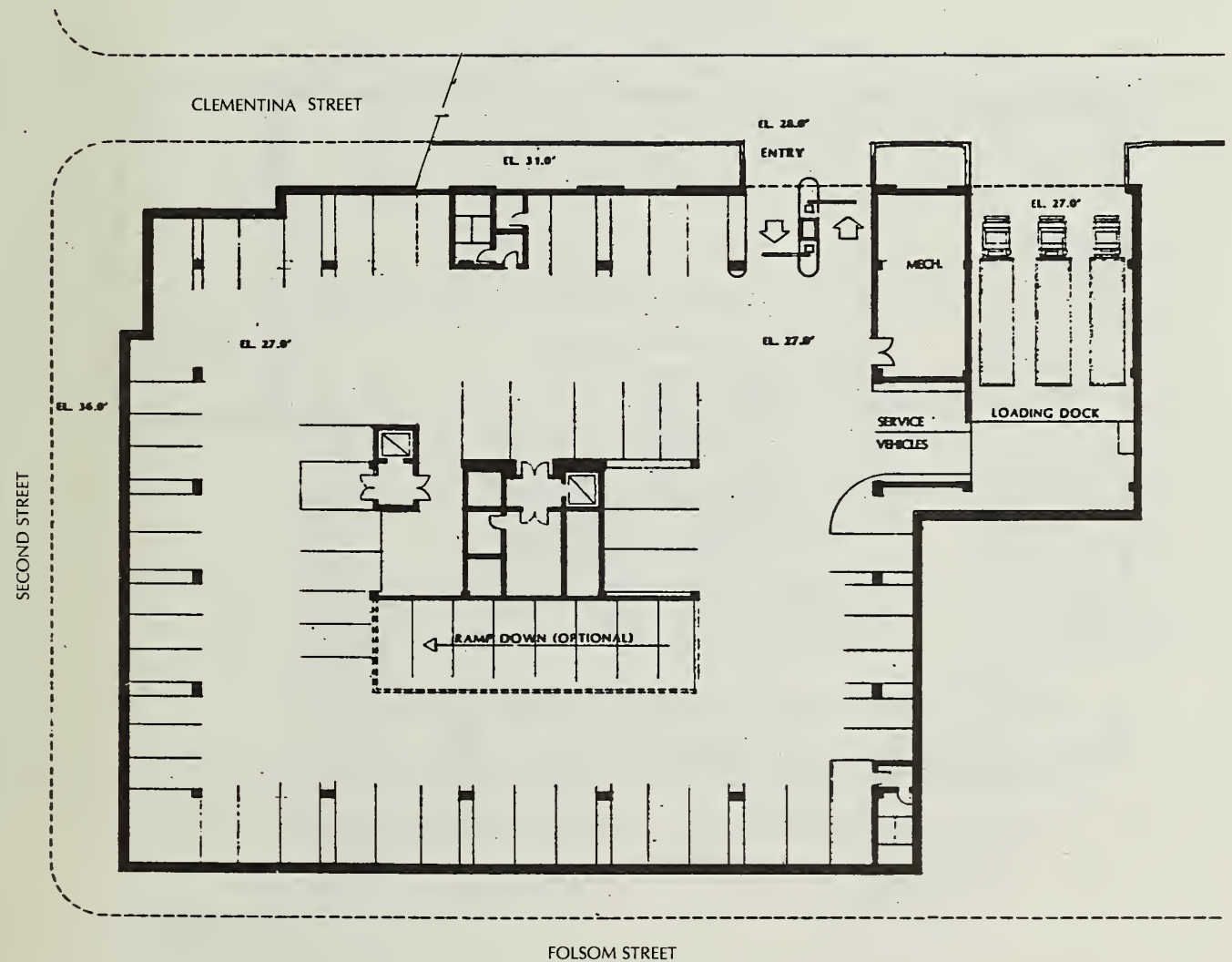
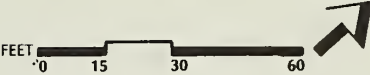


LONGITUDINAL SECTION

PARKING: LEVEL ONE

FIGURE 4 ●

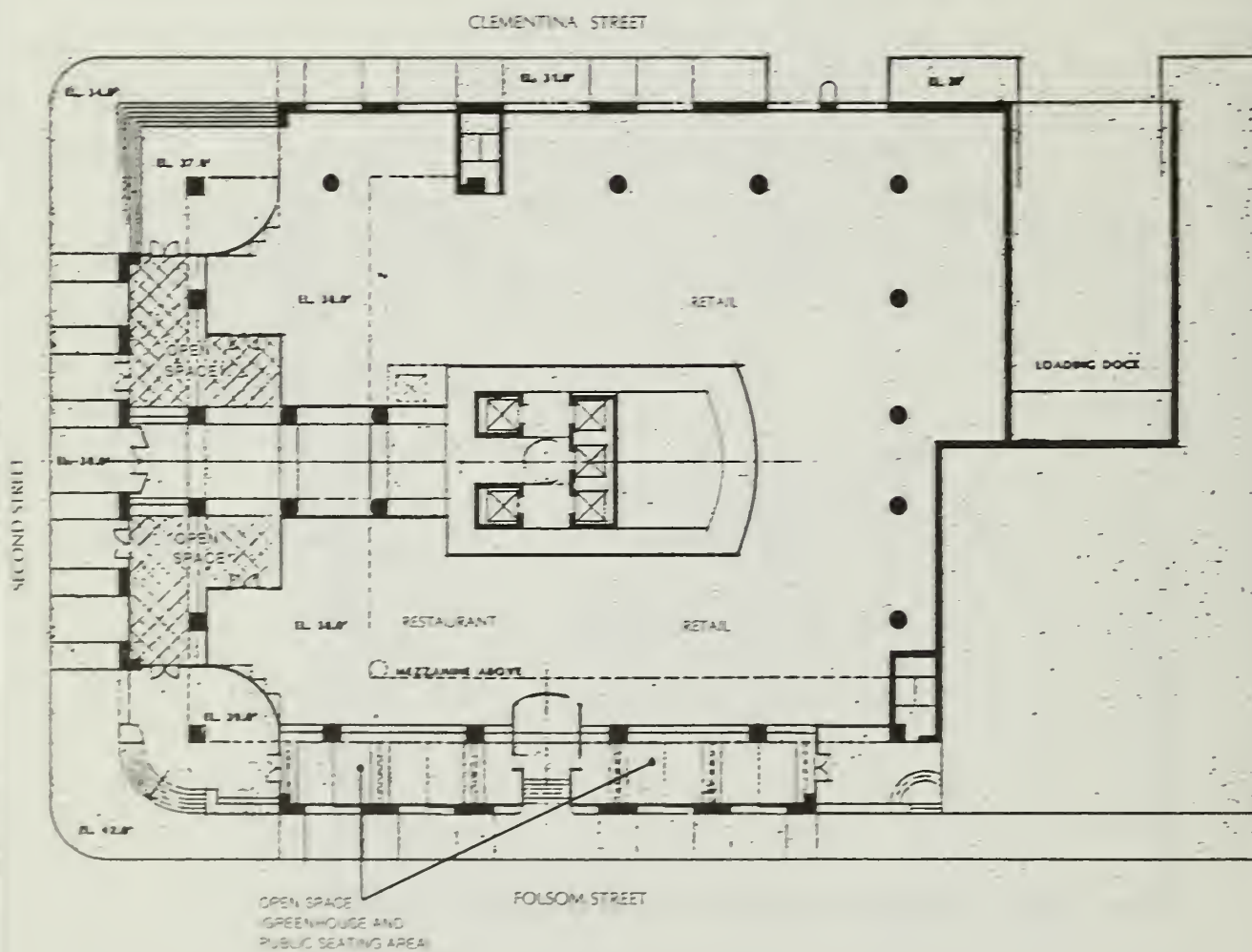
SOURCE: KAPLAN/McLAUGHLIN/DIAZ



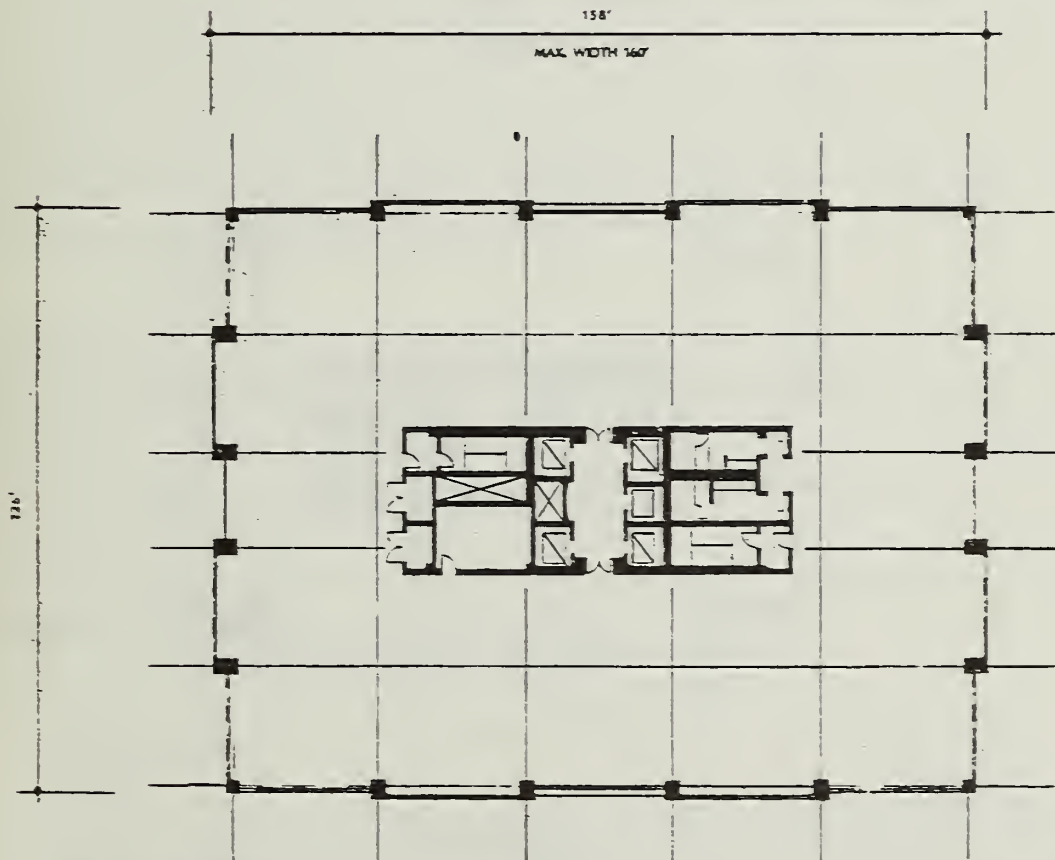
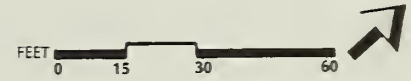
GROUND FLOOR PLAN

FIGURE 5 ●

SOURCE: KAPLAN/McLAUGHLIN/DIAZ



SOURCE: KAPLAN/McLAUGHLIN/DIAZ

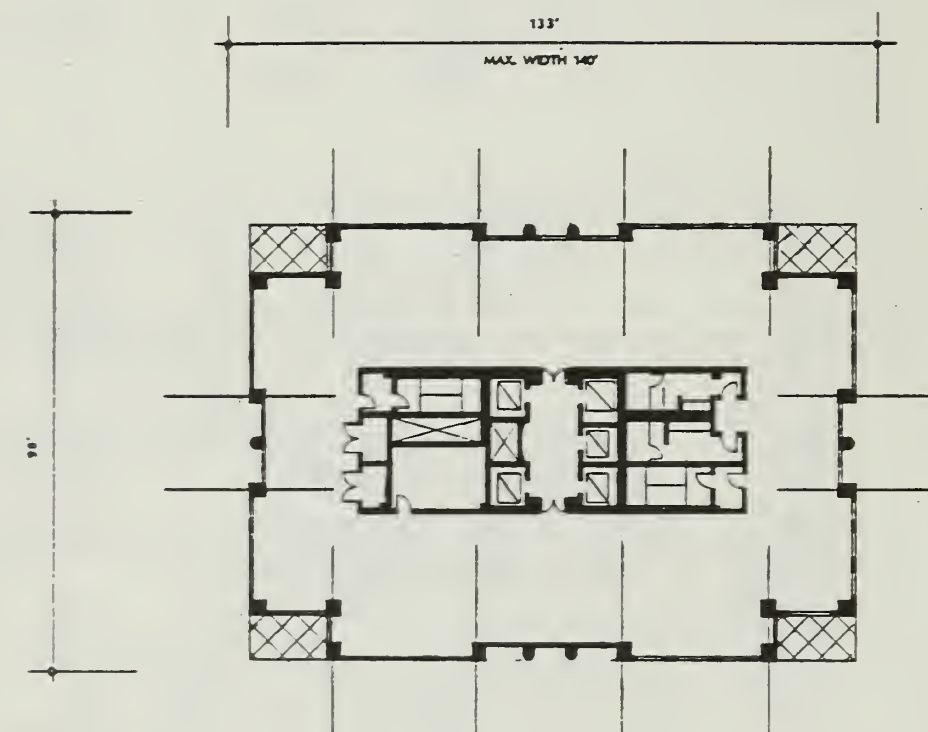


FLOORS 4 THROUGH 12
192' DIAGONAL
MAX. AVG. DIAGONAL 200'

TYPICAL UPPER TOWER PLAN

FIGURE 7

SOURCE: KAPLAN/McLAUGHLIN/DIAZ



140' DIAGONAL
MAX. AVG. DIAGONAL 160'

15TH FLOOR PLAN
10,657 S.F.

E. PROJECT SCHEDULE AND REQUIRED APPROVALS

The architectural firm for the proposed project is Kaplan McLaughlin & Diaz of San Francisco. The estimated construction cost of the project is \$21,920,000. Construction is expected to occur over an 18-month period, beginning in June 1985 and ending in January 1987.

The first step in processing the proposed project is a public review of the Draft EIR (DEIR) and responses to comments received during the DEIR review period. If the City Planning Commission finds the document to be adequate, accurate and objective, it will certify the EIR. The proposed project would be subject to the policy of the City Planning Commission to review all downtown projects under the Commission's powers of discretionary review.² Evaluation criteria under this process include the protection and enhancement of the pedestrian environment, preservation of architecturally and historically significant buildings, adequate and appropriate means of transportation to and from the project site, energy conservation, physical relationship of the proposed building to its environs, and effect on the City skyline as viewed from public areas. Under discretionary review procedures, the City Planning Commission would review the building design and its environmental context, and approve, approve with conditions, or disapprove the site permit for the project.

- The proposed project would also be subject to the policy of the Downtown Plan Ordinance adopted effective October 17, 1985 as part of the Planning Code. Pursuant to Section 128 procedures, the Zoning Administrator would be required to approve the Transfer of Development Rights. Under the Section 309 review procedures, the City Planning Commission would review the building design and its environmental context, and approve, approve with conditions, or disapprove the site permit for the project. Conditions could be imposed on aspects of the project affecting:
 - o Exceptions to City Planning Code requirements (e.g., setback and bulk exceptions).
 - o Building siting, orientation, massing and facade treatment, including proportion, scale, setbacks, materials, cornice, parapet and fenestration treatment, and design of building tops.

- o Views and view corridors, shadowing of sidewalks and open spaces, openness of the street to the sky, ground level wind current, and maintenance of predominant streetwalls in the immediate vicinity.
- o Traffic circulation and transit operation and loading points.
- o Pedestrian activity, such as placement of entrances, street scale, visual richness, location of retail uses, and pedestrian circulation, and location and design of open space features.
- o Public spaces adjacent to the project, such as location and type of street trees and landscaping, sidewalk paving material, design and location of street furniture.
- o Aspects of the design of the project which have significant adverse environmental consequences.
- o Other aspects of the development for which modifications are justified because of its unique or unusual location, environment, topography or other circumstances.

- A site permit application (No. 830-7557) was filed July 13, 1983, with the Central Permit Bureau of the City's Department of Public Works. Pursuant to Sections 204.5(c) and 309 of the Code, the project sponsor would apply for a Conditional Use Authorization to exceed the permitted parking allowance of seven percent of the total gross floor area ($7\% \times 329,075 = 23,035$ gsf) of the development (Section 204.5(c) of the Planning Code) by 22,700 (45,735 - 23,035) gsf.
- Following project approval by the City Planning Commission, the project sponsor would be required to obtain demolition, building and related permits from the Central Permit Bureau of the Department of Public Works.

¹ Foundation for San Francisco's Architectural Heritage, San Francisco Downtown Architectural Survey: C-3 Zoning District Final Evaluated List, December 1, 1982 (an update of Splendid Survivors). Heritage is a non-profit volunteer historic preservation organization that has identified and documented significant San Francisco buildings.

² San Francisco Planning Commission, Resolution 8479, adopted January 17, 1980, applicable to all proposals in the C-3 districts.

³ City and County of San Francisco, Downtown Plan Ordinance, No. 414-85, effective October 17, 1985, at section 309 of the Controls. Ordinance provisions have been incorporated into the City Planning Code.

- ⁴ The Dust Control Coordinator position (and Dust Control Management Plan (DCMP)) has been effectively used in other jurisdictions by Donald Ballanti, certified consulting meteorologist.

III. ENVIRONMENTAL SETTING

A. LAND USE AND ZONING

1. Land Use

The project site consists of three lots (Lots 27, 29 and 35) on Assessor's Block 3736 with a total area of about 30,890 square feet. Lots 27 and 29 contain a three-story concrete office building (590 Folsom Street and 81 Clementina, in back) and a two-story wood-frame building (299 Second Street), with offices above a ground-floor restaurant. Office uses in the two buildings total approximately 35,000 gross square feet (gsf), and restaurant uses total 1,950 gsf. There are also 52 marked parking spaces on Lot 29, and 22 spaces located partially on Lot 35 and partially on the northeastern portion of Lot 27 abutting Lot 35. Access to both lots is from Clementina Street. All of the existing structures on Lots 27, 29 and 35 would be demolished. Locations of lots, addresses and existing businesses on the site are shown in Figure 8, page 22.

The project site is located on the periphery of the downtown business district in the South of Market area, about two blocks east of the Yerba Buena Center (YBC) Redevelopment Area, and approximately one block west of the proposed Rincon Hill Plan boundary. Adjacent land use is composed primarily of offices with parking facilities, wholesale/garage, and commercial home and business services. Six residential units are located northeast of the project site at 568 Folsom Street. Elevated freeway ramps curve around the project site to the east and south, forming a physical and visual barrier between the site and some surrounding land use activities (Figure 9, page 23).

The project area, once characterized by printing, wholesaling and light manufacturing uses, is now being transformed into an office and office support area. South of the site across Folsom Street is the Second and Folsom (Marathon) Project (EE 81.18) approved for construction. Southwest of the site across Second Street is the 18-story Pacific Bell equipment/office building. West and north of the project site are older structures which

LAND USES IN IMMEDIATE PROJECT VICINITY

FIGURE 8

PROJECT SITE ■■■■

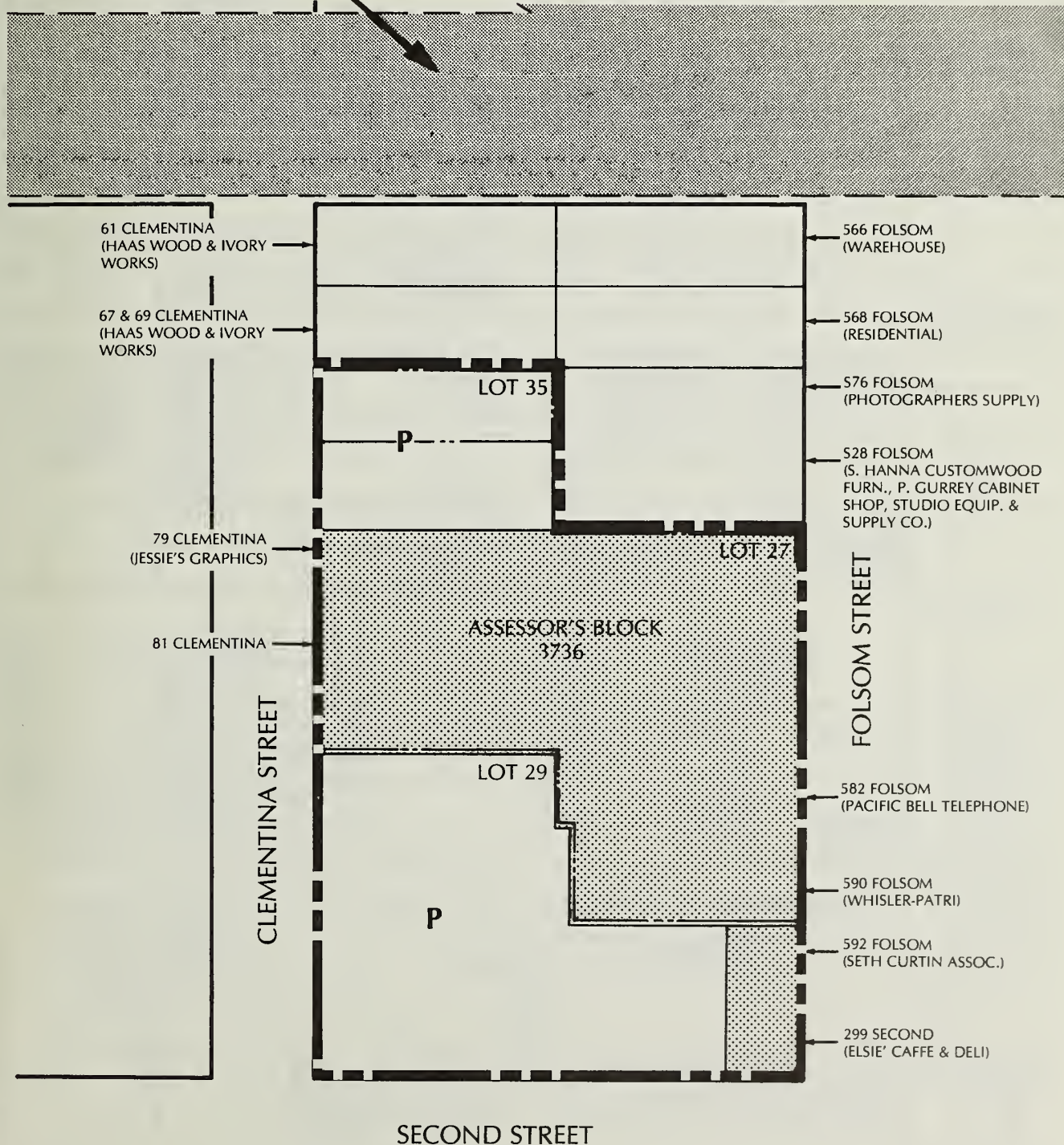
LOT LINE - - - -

PARKING LOT P

SOURCE: EIP CORPORATION

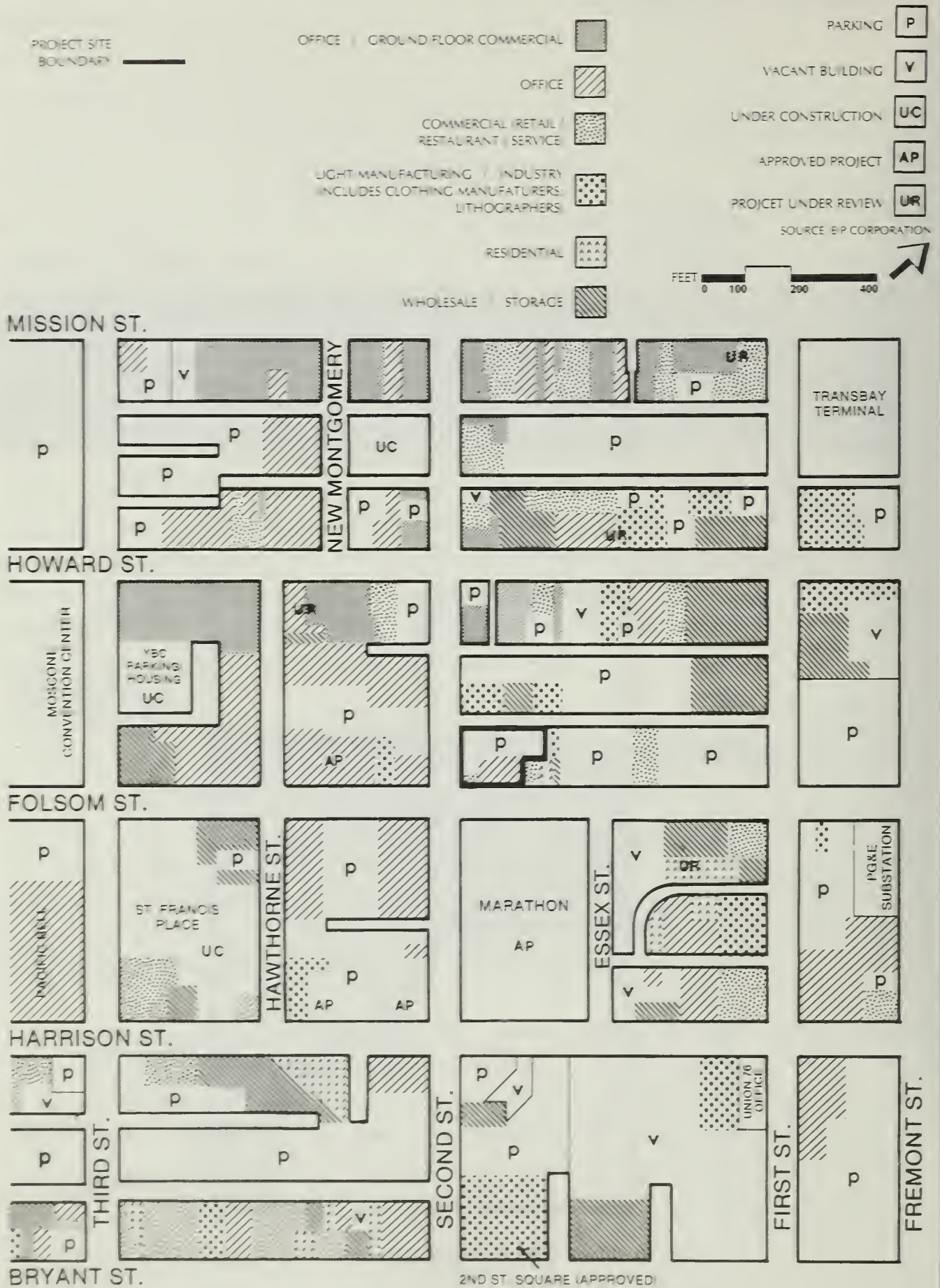
INTERSTATE 80 FREEWAY
(elevated on ramp)

FEET 0 15 30 60



EXISTING LAND USE

FIGURE 9



have recently been converted to office uses and home and service businesses. Building heights in the area bounded by Howard, Bryant, First and Third Streets generally range from 1 to 18 stories, with newer buildings taller than older ones. The majority of existing buildings in this area are generally 2-4 stories. One block southeast of the site is the 600 Harrison Street project (EE 82.241), a six-story office building under formal review. One block southwest of the site is the St. Francis Place project, a mixed-use project (under construction) sponsored by the San Francisco Redevelopment Agency.


2. Zoning

The project site is in a C-3-0 (SD) (Downtown Office Special Development) district; an area designated as a receiver area for the transfer of development rights from architecturally significant buildings or from Conservation Districts. It is intended to serve as an extension of the downtown office district (Figure 10, page 25). Buildings in this district are subject to a basic FAR of 6:1. Thus, buildings on the project site may contain a gross floor area of up to six times the project site area or about 185,340 square feet. Transferable Development Rights (TDRs) could be incorporated into projects in the C-3-0 (SD) district, pursuant to Section 128 of the Planning Code to implement the Downtown Plan (approved by the City Planning Commission, November 29, 1984), thus permitting projects with FARs above the base FAR of 6:1. Use of TDRs permits the transfer of development rights from one property to another, thus allowing development on one property to exceed Code-prescribed FARs, while the other property (often called a preservation or donor site) is frozen at a lower FAR.

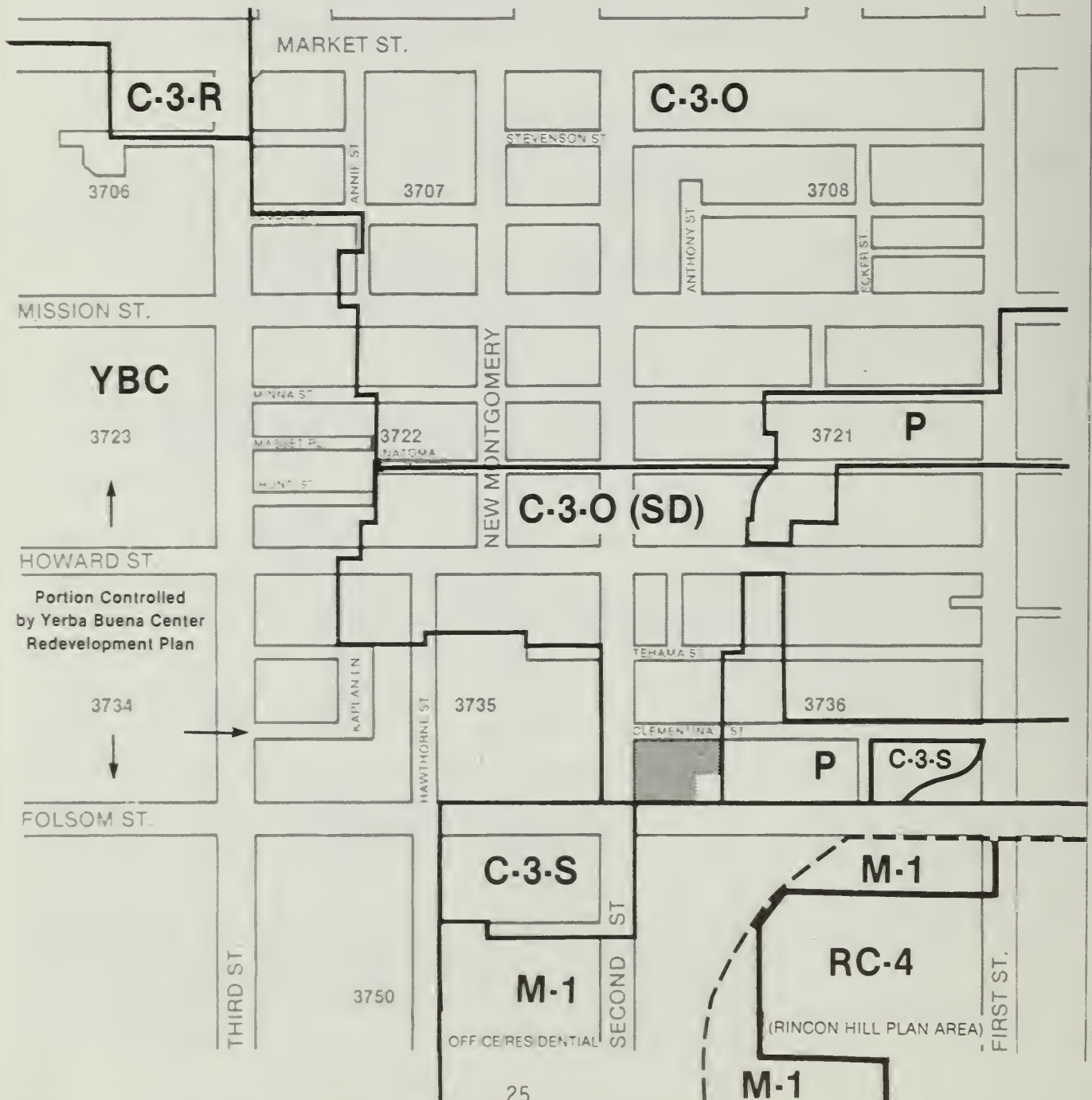
The project site is within a 200-S height and bulk district. Maximum permitted height is 200 feet. Vertical extensions, such as spires which enhance visual appearance and are not used for human occupancy, are permitted under Section 260b(1)G of the Planning Code, up to 75 feet above the height otherwise allowed. Section 260b(1)F of the Planning Code permits exemption of the top 20 feet of mechanical penthouses where height limits are more than 65 feet. The maximum dimensions of an "S" bulk district allow full site coverage on the project site up to a building height equivalent to 1.25 x the width of the widest adjacent street. The widest street adjacent to the project site is Second Street, which measures 80 feet across. Hence, "S" bulk controls would allow full site coverage to a height of 100 (80 x 1.25) feet. Between 100 and 160 feet in height, the maximum permitted building length is 160 feet and the maximum permitted diagonal

ZONING DISTRICTS

FIGURE 10 ●

PROJECT SITE	
BLOCK NO.	3706
COMMERCIAL DISTRICT	C-3-O
COMMERCIAL DISTRICT (SPECIAL DEVELOPMENT)	C-3-O (SD)
COMMERCIAL DISTRICT	C-3-R
COMMERCIAL DISTRICT	C-3-S
INDUSTRIAL DISTRICT	M-1
PUBLIC DISTRICT	P
HIGH DENSITY RESIDENTIAL/COMMERCIAL	RC-4
SOURCE: SAN FRANCISCO PLANNING CODE	

FEET 0 100 200 400



dimension is 200 feet. Between 160 and 200 feet in height, the maximum permitted building length is 140 feet, and the maximum permitted diagonal dimension is 160 feet (Figure 11, page 27).

Pursuant to Section 161(c) of the Planning Code, off-street parking is not required in a C-3 district; however, up to seven percent of the total gross floor area of the structure is allowed as an accessory use (Section 204.5(c)) and can be excluded from FAR calculations pursuant to Section 102.8(b)7. There are 74 long-term spaces on the project site that would be displaced by the project.

Parking area in excess of seven percent of the project gross floor area is considered a Conditional Use pursuant to Section 157 of the Planning Code, for which application must be made to the City Planning Commission. Specific criteria must be considered by the Commission in addition to those stated in other sections of the Planning Code, including a clear demonstration of the demand for additional parking beyond that considered as an accessory use, and a clear demonstration of the absence of potential detrimental effects of the additional parking.

Parking not classified as an accessory use in a C-3 district is also considered a major parking garage, according to Section 158 of the Planning Code. The City Planning Commission must review the garage using criteria reflecting concerns regarding accessibility, location, minimization of conflicts with pedestrian movements and amenities, the service patterns of other forms of transportation, and conformity with the Transportation Element of the Master Plan.

Section 303 of the Planning Code provides guidelines for the Conditional Use review process. As stated above, that portion of parking area in excess of seven percent of total project floor area would be considered a Conditional Use, would be considered a parking garage if located in a C-3 district, and would be subject to review criteria in Sections 157 and 158 of the Planning Code, in addition to those found in Section 303. Major considerations in the Section 303 review would include compatibility of a parking garage with the surrounding neighborhood, an assessment of whether or not a garage would be detrimental to the health, safety, convenience, or general welfare of persons in the vicinity, and conformity with the provisions of the Planning Code and Master Plan.

HEIGHT AND BULK DISTRICTS

FIGURE 11

PROJECT SITE

BLOCK NO. 3706

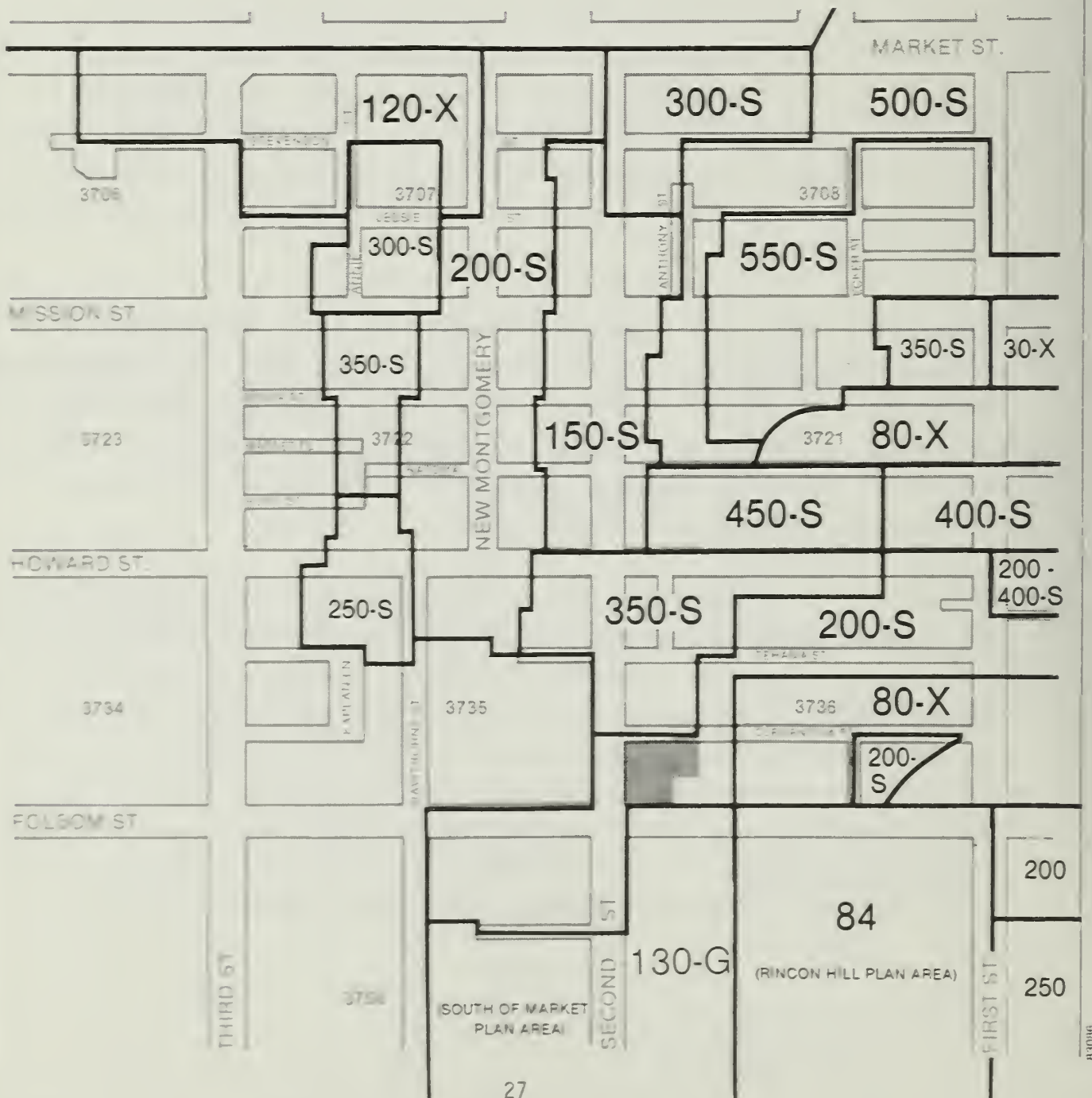
LETTER SYMBOLS REFER TO BULK LIMITS
IN CITY PLANNING CODE SEC. 270

NUMBERS ARE HEIGHT LIMITS IN FEET

00-Z

SOURCE: SAN FRANCISCO PLANNING CODE

FEET
0 100 200 400



- Off-street loading requirements for the project site appear at Section 152.5 of the Planning Code. The project would require four off-street loading spaces. Section 153(a)6 of the Planning Code permits substitution of two service vehicle spaces for each required off-street freight loading space, provided that a minimum of 50% of the required number of spaces are provided for freight loading.
- To encourage ground floor activity and amenities, Section 102.8(b)12 of the Planning Code permits the exclusion of certain retail, restaurant, personal services, and related uses on the ground floor not to exceed 5,000 gsf per use, and not to exceed 75% of the area of the ground floor and ground-level open space.

A minimum amount of publicly accessible open space is required for projects in C-3 districts. Pursuant to Section 138 of the Planning Code, a ratio of one square foot of open space to 50 gsf of project floor area is applied to a project to determine the open space requirement.

- As a result of Proposition K, the Park Shadowing Initiative Ordinance, pursuant to Section 295 of the Planning Code, building permit authorization would not be permitted for any structure that would cast any shadow on properties under the jurisdiction of, or designated for acquisition by, the Recreation and Park Commission (subject to certain exceptions) unless it is first determined by the City Planning Commission that the impact of the shading is insignificant.

The project is located in the C-3-0 (SD) office special development district, an area designated for the orderly expansion of the financial district. Also, the C-3-0 (SD) district is intended to serve as an area in which to direct unused development potential from lots containing significant or certain contributory buildings through the use of

- Transferable Development Rights.

- New buildings or additions to existing buildings, shall be shaped, according to Section 148
- of the Planning Code, so that development will not cause ground level wind currents to exceed, more than 10% of the time year round, between 7 a.m. and 6 p.m., the comfort level of 11 mph equivalent wind speed in areas of substantial pedestrian use and 7 mph equivalent wind speed in public seating areas.

- Pursuant to Section 149 of the Planning Code, new buildings in a C-3 district shall feature works of art costing an amount equal to 1.0% of physical construction costs. Works of art shall be clearly visible from public sidewalks, and displayed and maintained for the enjoyment of the general public. The type and location of the artwork shall be approved
- according to Section 309 of the Planning Code.

To minimize the transportation impacts of added office employment in the downtown, the project sponsor would be required to provide on-site transportation brokerage services for

- the actual lifetime of the project, pursuant to Section 163 of the Planning Code, so as to facilitate the effective use of transit, evening ridesharing, and employ other practical means to reduce commute travel by single-occupant vehicles.

- Section 270(d) of the Planning Code provides guidelines for building bulk in the S Bulk District. The guidelines provide direction for assessing the bulk of the base, lower tower, and upper tower portions of a building. The base extends vertically to a streetwall height up to 1.25 times the width of the widest abutting street or 50 feet, whichever is more. There are no length or diagonal dimension limitations applicable to the base. The lower tower, above the base, has bulk controls of 160 feet for maximum length, maximum average floor area of 20,000 square feet, and a maximum average diagonal dimension of 200 feet. Upper tower bulk controls apply to buildings taller than 160 feet. The controls are: maximum length of 140 feet; maximum average floor area of 12,000 square feet; maximum floor size for any floor of 17,000 square feet; and a maximum average diagonal of 160 feet. Exceptions to these controls for architectural reasons are subject to review
- under Sections 141 and 272 of the Planning Code and may be granted by the City Planning Commission pursuant to Section 309.

- Section 132.1 of the Planning Code provides guidelines for setbacks for buildings over 65 feet in height. Subsection 132.1(c) requires a minimum setback of 15 feet from the interior lot line for all structures in the "S" bulk district, including the proposed project. Subsection 132.1(c).3 allows for exception to the required interior lot line setback for structures which are adjacent to properties on which future development is unlikely due to restrictions.

3. Cumulative Downtown Office Development

Projects under review, approved or under construction as of March 10, 1984 include projects in the greater downtown area outside of the C-3 District (Appendix C, Tables C-1 and C-2, pages A-32 and A-42). An additional 5.5 million gsf of net new office space will be added when the buildings under construction are finished; another 4.8 million square feet of net new office space has been approved but is not yet under construction. Another 8.7 million square feet would be added if projects under formal review, as of March 10, 1984, are eventually built. This total of about 19.0 million gsf of net new office space (under formal review, approved, under construction, or completed but not fully occupied as of March 10, 1984) includes the 299 Second Street project, listed as adding about 171,000 gsf of net new office space. "Net" includes additional space, subtracting existing space on sites being developed or proposed for development.

Office space projections in the Downtown Plan EIR indicate the C-3 District would contain approximately 70.5 million gsf of office space by 1990, and 78.9 million gsf of office space by 2000.¹ Alternatives analyzed for the Downtown Plan EIR indicated a range of 77.5 million to 86.5 million square feet of total office space in the C-3 District by 2000.² Forecasts in the Downtown Plan EIR indicate a net increase of downtown office space of approximately 1.4 million square feet per year between 1984 and 1990 and a range of 0.7 to 1.6 million square feet per year between 1990 and 2000.

Within the 16-block area bounded by Market, Fremont, Harrison and Fourth Streets that includes the project site, there are 18 other developments either under review, approved, or under construction (Figure 12, page 31 and Table 1, page 32). Of the total 4,156,320 gsf of net new office space planned in this study area (not including approximately 10,000 gsf of office space in St. Francis Place, a project sponsored by the San Francisco Redevelopment Agency), 2,060,500 gsf has been approved or is under construction. The remaining 2,065,820 gsf is under formal review and subject to the Planning Code that limit permit approvals for office projects over 50,000 gsf in the downtown area until the adoption of comprehensive rezoning provisions.

CUMULATIVE DEVELOPMENT

FIGURE 12

PROJECTS UNDER REVIEW

- 2ND / MISSION 1
- 504 HOWARD 2
- 299 SECOND STREET 3
- 35 HAWTHORNE 4
- 50 GUY PLACE 5
- YBC SB-2 6
- 2nd STEVENSON 7
- 535 MISSION 8
- 201 2nd HOWARD 9

PROJECTS APPROVED

- CENTRAL PLAZA 1
- 75 HAWTHORNE 2
- 600 HARRISON 3
- 542 HARRISON 4
- 48 STEVENSON 5
- MARATHON/SECOND & FOLSOM 6
- 739 MARKET/FOURTH 7
- YBC CB-1 8
- YBC CB-2 9
- YBC EB-2 10
- 100 FIRST (AT MISSION) 11

PROJECTS UNDER CONSTRUCTION

- NEW MONTGOMERY PLACE 1
- 144 SECOND (AT MINNA) 2
- 71 STEVENSON 3
- 90 NEW MONTGOMERY 4
- YBC EB-1 5
- ST. FRANCOIS PLACE 6
- YBC PARKING/HOUSING 7

PROJECT SITE

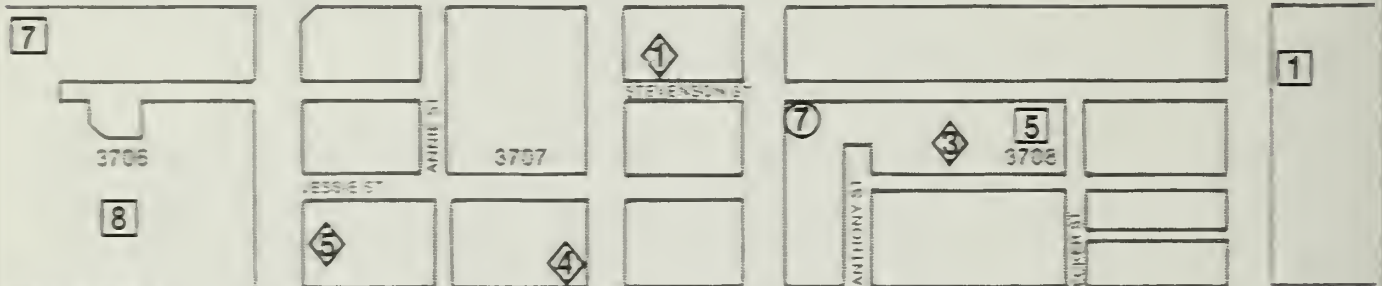
BLOCK NO 3706

DOWNTOWN PLAN BOUNDARY

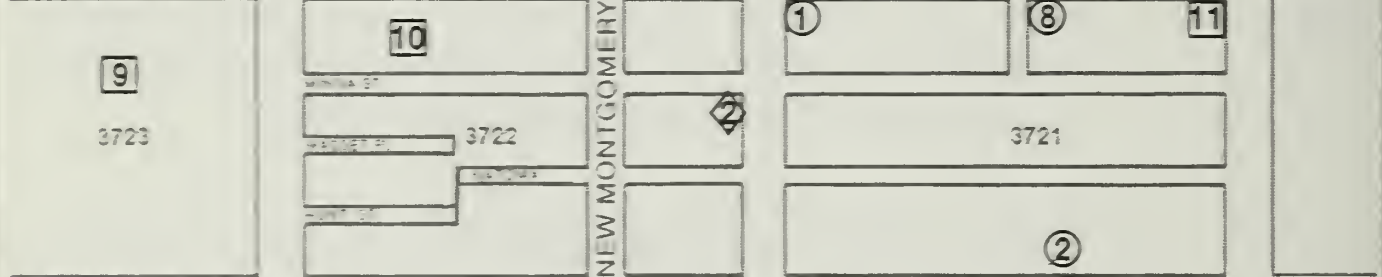
SOURCE: EP ASSOCIATES, SAN FRANCISCO
DEPARTMENT OF CITY PLANNING, DECEMBER 1, 1985

FEET 0 100 200 400

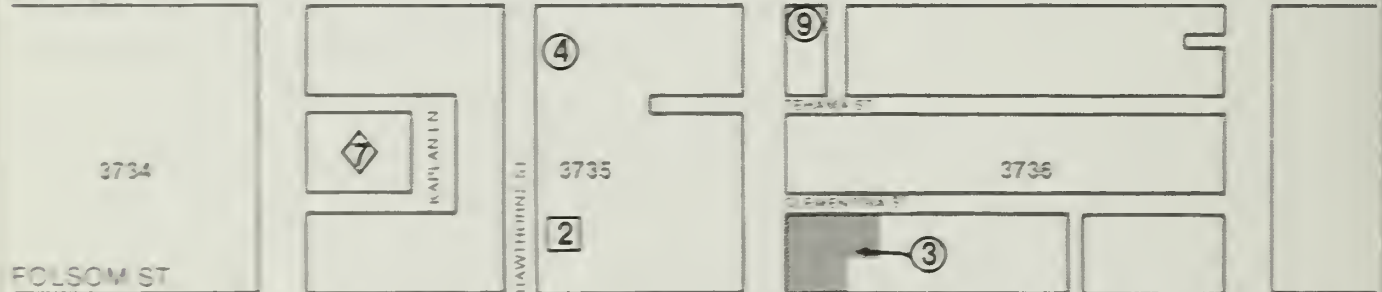
MARKET ST.



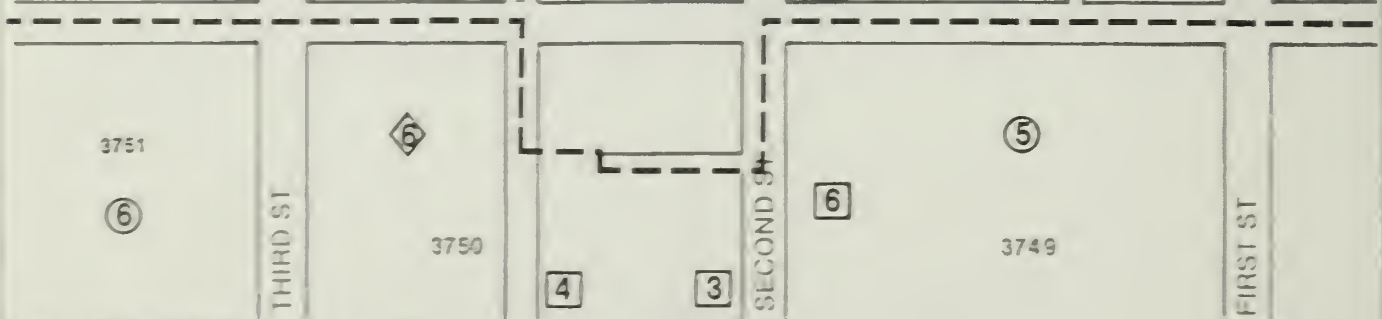
MISSION ST.



HOWARD ST.



FOLSOM ST.



HARRISON ST.

TABLE 1

CUMULATIVE OFFICE DEVELOPMENT IN THE PROJECT VICINITY^{1,2}

Projects Under Review:	Office GSF		Retail GSF	
	Total New Construction	Net New Construction	Total New Construction	Net New Construction
49 Stevenson/83.57E	169,000	136,900	9,800	-2,900
Lincoln Plaza/81.297ED	405,000	265,000	10,000	10,000
YBC Office Building/SFRA	593,000	593,000	--	--
100 First @ Mission/83.331ED	348,920	342,000	--	--
524 Howard/83.40EZD	279,000	279,000	15,000	15,000
299 Second Street/83.311E	206,000	171,000	10,000	10,000
35 Hawthorne/83.313E	47,400	47,000	2,900	2,900
50 Guy Place/83.464EV	17,500	17,500	--	--
TOTAL	2,065,820	1,851,400	47,700	35,000
Projects Approved:				
Central Plaza/81.113ED	353,100	136,300	17,400	17,400
71 Stevenson/81.493ED	324,600	324,600	6,200	6,200
New Montgomery Place/81.245DA	227,500	209,700	2,200	-3,900
90 New Montgomery/81.492ED	124,300	124,300	3,350	3,350
75 Hawthorne/SFRA	61,900	61,900	--	--
Marathon/Second & Folsom/EE81.18	686,700	686,700	35,300	35,300
600 Harrison/82.241E	228,000	228,000	10,000	10,000
642 Harrison/82.77V	54,400	45,900	--	--
TOTAL	2,060,500	1,817,400	74,450	68,350
Projects Under Construction				
144 Second @ Minna/81.417ED	30,000	30,000	--	--
TOTAL	30,000	30,000	--	--
TOTAL PLANNED OFFICE DEVELOPMENT	4,156,320	3,698,800	122,150	103,350

¹ As of March 10, 1984.² See Figure 12 for study area boundary

-
- ¹ City and County of San Francisco, Department of City Planning, Downtown Plan EIR, EE81.3, certified October 18, 1984, pages IV.B.28 and IV.B.31.
 - ² Downtown Plan EIR, Appendices, pages G-37 through G-41.

B. URBAN DESIGN AND VISUAL QUALITY

Folsom Street is a four-lane, one-way eastbound street and Second Street is a four-lane two-way street by the project site. Both streets have parallel parking on both sides. They are heavily traveled, with sporadic lane blockages as trucks load and unload on Folsom Street. Folsom Street, looking east, terminates in the Transbay Bus Terminal overhead freeway ramp. To the south, the Embarcadero Freeway overpass curves southwest, paralleling Harrison Street. There is no visual sense of beginning or end to the ramps as they curve around the project area to the east and south. The ramps rise above most of the buildings in the area and impart a sense of enclosure to the project area. The City skyline of high-rise office buildings forms the backdrop to the project site looking north (Figure 13, page 35).

Building heights in the immediate area vary from 1 to 18 stories (Figure 14, page 36). The older buildings are low-rise brick, concrete, or wood-frame buildings in various states of repair. These and newer structures are built out to the property lines and contain offices and light industrial uses in a variety of styles, colors, and sizes, ranging from two-story Victorian to modern smooth-skinned highrises.

Street trees of varying species, heights and ages are evenly spaced or grow in small, linear clusters along some blocks of Second and Folsom Streets and one area on Clementina Street, north of the project site. The streetscape along Second and Clementina Streets is broken up by overhead utility lines and poles, and light standards.

The Second and Folsom Street intersection offers a visual sampling of the transition occurring within the project area. The southeast corner is currently a construction site with a chain link fence around the perimeter, containing construction equipment and a portable on-site construction office. Across Second Street, on the southwest corner, is the newer 18-story, 210-foot-high Pacific Telephone building set back with a plaza on Folsom Street. The architecture is modern with a flat, windowless facade of grey concrete with no ornamentation or detail. On the northwest corner of the intersection is a renovated four-story Victorian wood-frame rust and beige office building with a prominent cornice line and window pattern. The three-part composition contains a one-level base, a two-story mid-section, and a one-story upper level.

PROJECT SITE

SOURCE: EIP CORPORATION



VIEW LOOKING NORTH TO PROJECT SITE ON SECOND STREET

PROJECT SITE



ELSIE'S CAFFE (299 SECOND STREET)
LOOKING NORTHEAST FROM
FOLSOM STREET



VIEW SOUTHEAST OF PROJECT SITE
FROM SECOND STREET

III.B. Environmental Setting: Urban Design and Visual Quality

The project site is occupied by two buildings. One is a three-story, grey, concrete, renovated L-shaped warehouse with beige and green trim. The north facade of the building has multiple-paned horizontal windows fronting on but set back from Clementina Street. The other building is a two-story Victorian wood-frame structure on the corner, with bay windows on the upper level. The remainder of the site is a striped, asphalt parking lot, separated by a wing of the three-story building.

C. SHADOW AND WIND

1. Shadow

Existing structures on the site cast shadows on streets and sidewalks in the project vicinity. Shadows from the two existing buildings are cast onto portions of Clementina and Second Streets at different times of the day in certain seasons of the year. Existing and project shadow patterns for various times of the day and year are discussed in detail in Section IV.D. Environmental Impacts, pages 75 through 82, and are shown in Figures 21 through 25, pages 76 through 80.

On June 5, 1984, Proposition K, the Park Shadowing Initiative Ordinance, was passed by the voters in San Francisco. Generally, Proposition K prohibits issuance of a building permit for structures that will cast any shade or shadow during designated hours upon property under the jurisdiction of, or designated for acquisition by, the Recreation and Park Commission unless the City Planning Commission first holds a hearing and determines that any adverse impact on the use of the property because of the shading or shadowing would be in-significant. The Planning Commission would not make a determination of significance until the Recreation and Park Commission reviewed and commented on the project.

The closest property under the jurisdiction of the Recreation and Park Commission is South Park, located approximately three blocks southeast of the project site, near the intersection of Second and Bryant Streets.

2. Wind

- U.S. Weather Bureau data show that westerly (i.e., from the west) to northwesterly winds are the most frequent and strongest winds during all seasons in San Francisco.¹ Of the 16 primary wind directions measured at the Weather Bureau station (at a height of 132 feet), four directions comprise the greatest frequency of occurrence as well as the majority of strong wind occurrences. These are northwest, west-northwest, west and west-southwest, with occurrence rates of 10%, 14%, 35% and 2%, respectively, of the time between the hours of 6:00 a.m. to 8:00 p.m. throughout the year. The remaining 12 wind directions comprise the remaining 36% frequency of annual occurrence with lower wind speeds. Calm conditions occur two percent of the time.

Average wind speeds are highest during the summer and lowest during winter months. However, strongest peak winds occur in winter, when speeds of 47 mph have been recorded.² The highest average wind speeds are in the mid-afternoon, and the lowest are in the early morning."

Between the hours of 7:00 a.m. and 6:00 p.m. on an annual basis, wind speeds measured at the Weather Bureau station exceed 21, 25, 21 and 18 miles per hour (mph) 10% of the time for northwest, west-northwest, west and west-southwest winds, respectively, while the 12 remaining wind directions exceed 15 mph 10% of the time.

Pedestrian Comfort and Wind Criteria. Wind conditions partly determine pedestrian comfort on sidewalks and in other public areas. In downtown areas, high-rise buildings can redirect wind flows around buildings and divert winds downward to street level; each can result increased wind speed and turbulence at street level.

The comfort of pedestrians varies under different conditions of sun exposure, temperature, clothing, and wind speed. Winds up to four mph have no noticeable effect on pedestrian comfort. With winds from four to eight mph, wind is felt on the face. Winds from 8 to 13 mph will disturb hair, cause clothing to flap, and extend a light flag mounted on a pole. For winds from 19 to 26 mph, the force of the wind will be felt on the body. At 26 mph to 34 mph wind, umbrellas are used with difficulty, hair is blown straight, there is difficulty in walking steadily, and wind noise is unpleasant. Winds over 34 mph increase difficulty with balance and gusts can blow people over.³

In order to provide a comfortable wind environment for people in the Downtown, Section 148 of the Planning Code establishes an equivalent (includes the effects of turbulence) windspeed (as defined in the code) of seven and 11 mph as comfort criteria and 26 mph as a wind hazard criterion. Section 148 sets comfort levels of seven mph equivalent wind speed for public seating areas and 11 mph equivalent wind speed for areas of substantial pedestrian use. New buildings and additions to buildings may not cause ground level winds that would exceed these levels more than 10% of the time between 7:00 a.m. and 6:00 p.m. year round.⁴ If existing wind conditions exceed the comfort level, new buildings and additions shall be designed to reduce ambient wind speeds to meet the requirements.

A building may qualify for an exception to the standard that would allow it to add to the amount of time the comfort level is exceeded by the least practical amount if 1) it can be shown that the building or addition cannot be shaped and other wind baffling measures cannot be adopted to meet the foregoing requirements without creating an unattractive an ungainly building form and without unduly restricting development of the building site in question, and 2) it is concluded that, because of the limited amount by which the comfort level is exceed, the addition is insubstantial. No building or addition that would cause wind speeds to exceed the 26 mph hazard level for more than a single hour of any year would be permitted.

Existing and project generated wind conditions are discussed in detail in Chapter IV, Environmental Impact, p. 31 and Appendix G, page A-55 of the EIR.

¹ The U.S. Weather Bureau data used in this analysis were originally gathered at the weather station atop the old Federal Building at 50 United Nations Plaza during the years 1945-1950. Data were taken hourly, annually for 16 wind directions. The data base comprised of 32,795 hourly observations, is of sufficient length to provide a reliable estimate of future climatic conditions of San Francisco.

² E. Jan Null, Climate of San Francisco, NOAA Technical Memorandum, NWS WR-126, February 1978.

³ Lawson, T.V., and A.D. Penwarden 1976, "The Effects of Wind on People in the Vicinity of Buildings," Proceedings of the Fourth International Conference on Wind Effects on Buildings and Structures, London, 1975, Cambridge University Press, Cambridge, U.K., 605-622.

⁴ Section 148 of the Planning Code specifies the hours of 7:00 a.m. to 6:00 p.m. The available weather data that cover that interval cover the hours of 6:00 a.m. to 8:00 p.m. Thus, observations from these two additional evening hours and one additional morning hour are included in these data. Because, in general, winds are stronger in the afternoon and evening than in the morning, this approximation is conservative -- it is likely to overestimate the existing and project wind speeds.

D. ARCHITECTURAL AND HISTORIC RESOURCES

1. Buildings on the Project Site

The two buildings on the project site are rated "C"¹ by Heritage in its most recent architectural survey of December 1, 1982. The rating scale is from "A" (Highest Importance) to "D" (Minor or No Importance). The 590 Folsom Building (on Lot 27), formerly the Bothin Realty Building, built in 1921 by Arthur G. Bugbee, is a three-story concrete structure. The 299 Second Street building (on Lot 29), a two-story wood-frame structure, was built around 1906. None of the buildings on the site is included in the list of architecturally or historically significant buildings adopted by City Planning Resolution 3600.

2. Significant Buildings in the Vicinity

In the vicinity of the proposed project bounded by First, Third, Folsom and Market Streets, there are several buildings rated "A" and "B" by Heritage and also rated by the Department of City Planning (DCP) (Figure 15, page 41).

Development in the downtown area has resulted in the total or partial demolition of 37 rated buildings between 1979 and 1982. See Appendix H, page A-63 for a complete list of these buildings.

¹ Charles Hall Page and Associates, for the Foundation for San Francisco's Architectural Heritage, Splendid Survivors (San Francisco: California Living Books, 1979), pages 12-13. A "C" (Contextual Importance) rating indicates that a building is distinguished by its scale, materials, compositional treatment, cornice and other features. The building was rated in Heritage's updated survey, December 1, 1982.

ARCHITECTURALLY/HISTORICALLY SIGNIFICANT BUILDINGS IN THE PROJECT AREA

FIGURE 15

DOWNTOWN PLAN			DOWNTOWN PLAN			PROJECT SITE	BLOCK NO.	3706	
BLDG NO.	LOT NO.	CATEGORY	BLDG NO.	LOT NO.	CATEGORY				
CARROL & TILTON BLDG. 735 MARKET	1	61	II	SHARON ESTATE CO. 667 HOWARD	34	39	III	HERITAGE RATING "A"	★
BANCROFT BLDG. 725 MARKET	2	62	II	S.F. NEW CO. 657 HOWARD	35	41	I		
CENTRAL TOWER 703 MARKET	3	1	III	BRIZARD & YOUNG 72 TEHAMA	36	91	III		
EXAMINER BLDG. 691 MARKET	4	57	I	PHILLIPS BLDG. 243 FIRST ST.	37	6	I		
MONADNOCK BLDG. 681 MARKET	5	51	-	J.E. BIER BLDG. 572 FOLSOM	38	25	-	HERITAGE RATING "B"	★
PALACE HOTEL 639 MARKET	6	52	-	GEORGE W. CASWELL CO. 540 FOLSOM	39	17	-		
METROPOLITAN TRUST 625 MARKET	7	59	-	KLOCKARS BLACKSMITH SHOP 449 FOLSOM	40	28	-		
HOFFMAN GRILL 619 MARKET	8	55	-	658 MISSION	41	20	I		
SANTA FE BLDG. 601 MARKET	9	1	IV	39 NEW MONTGOMERY	42	35	I	HERITAGE RATING "C"	●
SCHUMACHER BLDG. 20 SECOND ST.	10	2	IV	79 NEW MONTGOMERY	43	14	I		
MERCANTILE BLDG. 700 MISSION	11	71	-	631 HOWARD	44	5	II		
BREEN'S 71-77 THIRD ST.	12	29	-	609 MISSION	45	1	IV		
CALL BLDG. 74 NEW MONTGOMERY	13	33	I	617 MISSION	46	73	IV	CITY LANDMARK	○
SHARON BLDG. 55 NEW MONTGOMERY	14	35	-	111 NEW MONTGOMERY	47	72	IV		
PALACE GARAGE 111 STEVENSON	15	44	I	137 NEW MONTGOMERY	48	7	IV		
WELLS FARGO 71 SECOND ST.	16	19	I	170 NEW MONTGOMERY	49	22	IV		
CALIFORNIA FARMER 83 STEVENSON	17	34	III	25 SECOND	50	4	IV	DCP RATING	3
64 JESSIE	18	29	-	42 SECOND	51	5	IV		
CHANCERY BLDG. 562 MISSION	19	17	-	48 SECOND	52	6	IV		
ONE ECKER 16 JESSIE	20	22	I	52 SECOND	53	7	IV		
WILLIAMS BLDG. 101 THIRD ST.	21	63	I	60 SECOND	54	8	IV	SOURCES: ROGER OWEN BOYER EIP ASSOCIATES	
RIALTO BLDG. 116 NEW MONTGOMERY	22	71	I	70 SECOND	55	9	IV		
RAPP BLDG. 121 SECOND ST.	23	71	I	76 SECOND	56	10	IV		
549 MISSION	24	81	-	90 SECOND	57	12	IV		
PACIFIC TELEPHONE 134 NEW MONTGOMERY	25	8	I	120 SECOND	58	2	IV	FEET	0 100 200 400
N. CLARK & SONS (PKG) 116 NATOMA	26	6	I	133 SECOND	59	51	IV		
MORTON L. COOK BLDG. 132 SECOND ST.	27	3	I	144 SECOND	60	4	IV		
BARKER KNICKERBOCKER 141 SECOND ST.	28	50	I	149 SECOND	61	49	IV		
UNDERWRITER'S 147 NATOMA	29	13	I	156 SECOND	62	5	IV	↗	
ELECTRICAL BLDG. 165 SECOND ST.	30	25	IV	163 SECOND	63	48	IV		
F.C. JANSSEN BLDG. 568 HOWARD	31	20	-	168 SECOND	64	16	IV		
CA. BOILER WKS /GAR. 522-528 HOWARD	32	13	-	182 SECOND	65	19	IV		
PRINTING ARTS 500 HOWARD	33	11	-						

BLOCK NO. 3706

HERITAGE RATING "A" ☆

HERITAGE RATING "B" ★

HERITAGE RATING "C" ●

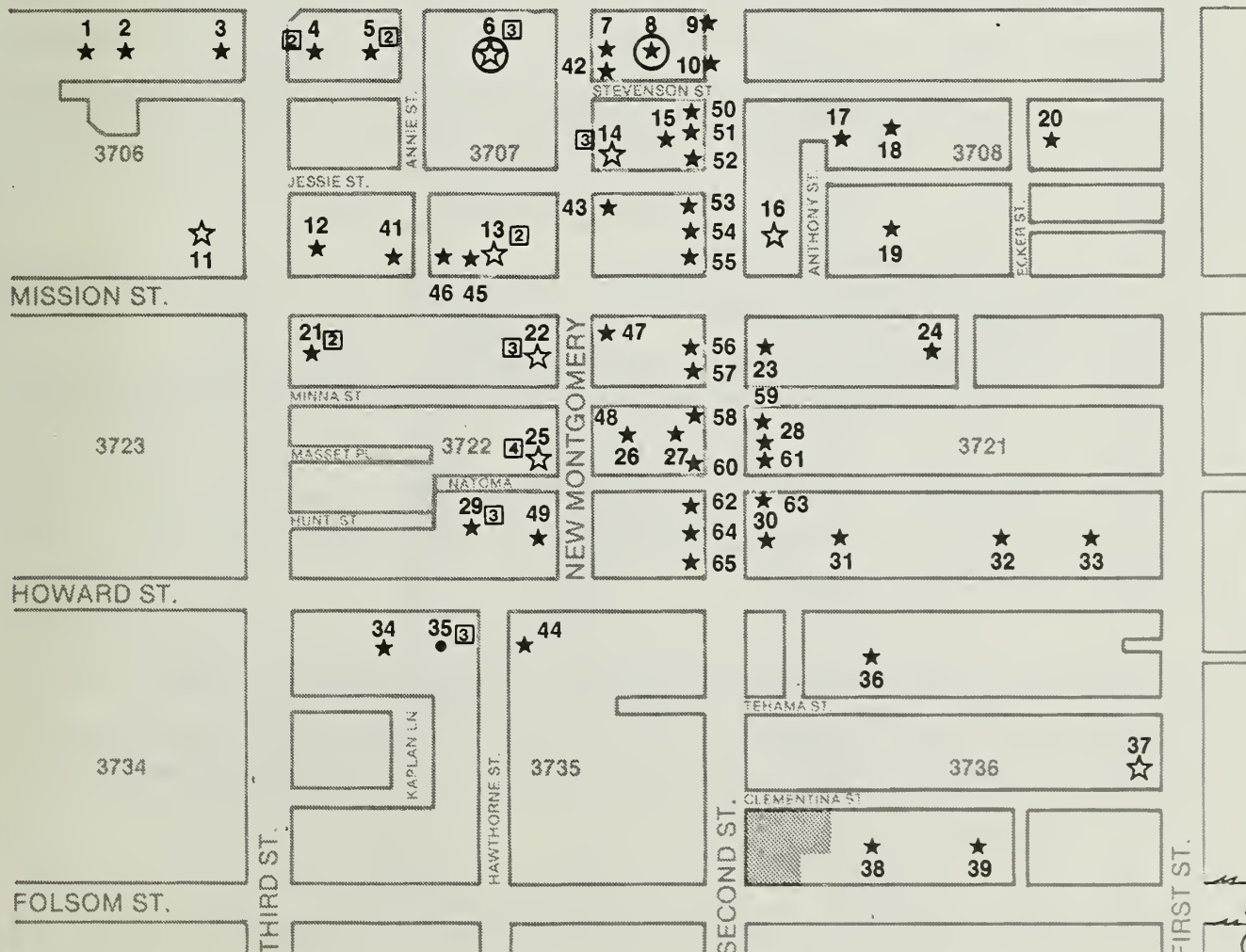
CITY LANDMARK ○

DCP RATING [3]

SOURCES: ROGER OWEN BOYER
EIP ASSOCIATES

FEET
0 100 200 400

MARKET ST.



E. TRANSPORTATION

The project site is bounded on the south, west and north by Folsom, Second and Clementina Streets, respectively. In the project area, Second Street is a four-lane, two-way street, while Folsom Street is one way (eastbound) and four lanes wide. Clementina is a relatively narrow (24-foot curb-to-curb width) street serving local access needs and service vehicles. Folsom Street is designated a primary vehicular street, transit preferential street, and preferred commute bicycle route. Second Street is a pedestrian oriented, transit preferential and preferred commuter bicycle street in the Transportation element of the City's Comprehensive Plan.¹

Clementina Street's existing p.m. peak-hour volume is about 75 vehicles (approaching First Street). This volume primarily reflects primarily traffic generated by existing curb parking and off-street lots. Through traffic is limited and the existing traffic flow on Clementina could be described as stable with little congestion. First Street is a heavily traveled link between the downtown and eastbound ramps to the Bay Bridge. First Street currently carries 1,200-1,300 p.m. peak-hour vehicles north of Folsom. As a result of congestion on the bridge, p.m. peak-hour traffic on First Street backs up through the First/Harrison intersection with queues sometimes extending through the First/Folsom intersection. These conditions can be described as service level E-F. At these times vehicle volumes drop below 1000 peak hour vehicles because of slow moving traffic. Second Street is not constrained by Bay Bridge queuing, and peak-hour operation is at service level A for the Second/Folsom and Second/Howard intersections.

Regional access to the project from the East Bay and Peninsula is available via I-80 off-ramps at Fremont/Harrison and Fremont between Folsom and Howard. On-ramps for the Bay Bridge are located at Harrison/First, Harrison/Essex and Bryant/Sterling (only high-occupancy vehicles and trucks from 3:00-7:00 p.m.). Access to Highway 101 and the Peninsula is via on-ramps at Fourth/Harrison and off-ramps at Fourth/Bryant. Access to and from the North Bay is less well-defined, but is via surface street connections to the Embarcadero and Van Ness corridors.

Within a quarter-mile (2-3 block) walking distance of the site, a total of 24 Muni lines are in operation (see Figure 16, page 43). AC Transit, Golden Gate Transit and San Mateo Transit bus services are available at the Transbay Terminal at Mission and First Streets.

FIGURE 16



In addition, Golden Gate Transit bus service operates along Howard and Folsom Streets, and SamTrans service operates along Mission Street. The BART/Muni Montgomery Street station is about three to four blocks north of the project site. The Southern Pacific station (at Townsend/Fourth) is about six blocks southwest of the site. Each of these systems is accessible via a longer walk or a transfer from various Muni lines in the South of Market area.

The project site lies within the parking belt designated in the Transportation element of the Comprehensive Plan (page 47). The Downtown Plan encourages the short-term use of existing parking spaces within and adjacent to the downtown core by converting all-day commuter parking to short-term parking in areas of high demand.² The project site now contains 74 long-term parking spaces. The project vicinity (an area bounded by Main, Townsend, Fourth and Market) contains 60 parking lots with 11,162 spaces. Average midday occupancy is 87%.³

Adjacent to the site, sidewalk widths are 8 feet on Clementina Street, 15 feet on Second Street and 10 feet on Folsom Street. The effective widths (allowing for street trees, signs and parking meters) are 6 feet, 13 feet and 7 feet, respectively. These widths correspond to the official widths mapped by the City. Existing pedestrian flow conditions are "open" on the Clementina, Second and Folsom Street sidewalks during both the p.m. and noon peak hours. Cross-walks across Second and Folsom are also "open" during the p.m. and noon peak hours.⁴

The City's Comprehensive Plan identifies Howard and Folsom Streets as bicycle routes (without specific bike lane striping).

¹Department of City Planning, City and County of San Francisco, Transportation on Element of the Master Plan, January, 1983.

²Downtown Plan Proposal as adopted by the City Planning Commission, November 29, 1984, page 116.

³Jon Twichell/Associates, South of Market Short-term Parking Analysis, October 15, 1984.

⁴Field review by George W. Nickelson, EIP traffic engineer, on September 28, 1983.

● F. AIR QUALITY

The Bay Area Air Quality Management District (BAAQMD) operates a regional monitoring network which measures the ambient concentrations of six air pollutants: ozone (O_3), carbon monoxide (CO), total suspended particulates (TSP), lead (Pb), nitrogen dioxide (NO_2), and sulfur dioxide (SO_2). On the basis of the monitoring data, the Bay Area, including San Francisco, currently is designated a non-attainment area with respect to the federal ozone and CO standards. A three-year summary of the data collected at the BAAQMD monitoring station nearest the project site (about two miles south-southeast of the site at 900 23rd Street) is shown in Appendix F, page A-52, together with the corresponding federal and/or state ambient air quality standards. In 1984, there was one violation of the federal and state one-hour average ozone standards, one violation of the federal and state eight-hour CO standard, and five violations of the previous state 24-hour average TSP standard; in 1983 there was one violation of the federal and state eight-hour standard, and four violations of the previous state 24-hour average TSP standard; and in 1982 there was one violation of the federal and state eight-hour CO standard, and three violations of the state 24-hour average TSP standard.¹

BAAQMD has conducted two CO "hotspot" monitoring programs in the Bay Area, including San Francisco. One CO hotspot monitoring program was conducted during the winter of 1979-80 at the intersection of Washington and Battery Streets in San Francisco, about .75 miles northwest of the site.² The high eight-hour average concentration was 10.1 ppm, which violates the 9-ppm state and federal standards by 1.1 ppm. The high one-hour average concentration of 15 ppm does not violate the 20-ppm state standard or the 35-ppm federal standard. Another CO hotspot monitoring program was conducted during the winter of 1980-81 at the intersection of Geary and Taylor Streets, about one mile northwest of the site, and 100 Harrison Street at Spear, about one-half mile east of the site.³ At Geary and Taylor the observed high eight-hour average concentration was 11.5 ppm which violates the standards by 2.5 ppm and the high one-hour concentration was 15 ppm which does not violate the standards. At Harrison Street the observed high eight-hour and one-hour average concentrations were 7.8 ppm and 13 ppm, respectively, which do not violate the standards. These data indicate that locations in San Francisco near streets with high traffic volumes and congested flows may experience violations of the eight-hour CO standard during adverse meteorological conditions. In December 1985, the

City monitored CO and counted traffic at the Sixth and Brannan intersection. The data are still being analyzed.

Comparison of these data with those from other BAAQMD monitoring stations indicates that San Francisco's air quality is among the least degraded of all the developed portions of the Bay Area. Three of the four prevailing winds, west, northwest and west-northwest, blowing off the Pacific Ocean, reduce the potential for San Francisco to receive pollutants from elsewhere in the region.

San Francisco's air quality problems, primarily CO and TSP, are due largely to pollutant emissions from within the City. CO is a non-reactive pollutant with one major source category, motor vehicles. CO concentrations are generally highest during periods of peak traffic congestion. TSP levels are relatively low near the coast, increase with distance inland, and peak in dry, sheltered valleys. The primary sources of TSP in San Francisco are demolition and construction activities, and motor vehicle travel over paved roads.

San Francisco contributes to air quality problems, primarily ozone, a regional problem, in other parts of the Bay Area. Ozone is not emitted directly from sources, but is produced in the atmosphere over time and distance through a complex series of photochemical reactions involving hydrocarbon (HC) and nitrogen oxide (NOx) emissions, which are carried downwind as the photochemical reaction occurs. Ozone standards are exceeded most often in the Santa Clara, Livermore, and Diablo Valleys, because local topography and meteorological conditions favor the build up of ozone and its precursors there.

In 1982, emissions from motor vehicles were the source of 86% of the CO, 46% of the HC, 44% of the TSP, and 56% of the NOx in San Francisco, while power plant fuel combustion was the largest single source of sulfur oxides, about 33% of the total.⁴ These percentages are expected to apply reasonably well to current conditions.

In response to the Bay Area's ozone and CO non-attainment designations, the Association of Bay Area Governments (ABAG), BAAQMD, and the Metropolitan Transportation Commission (MTC) prepared and adopted the 1982 Bay Area Air Quality Plan, which establishes pollution control strategies to attain federal ozone and CO standards by 1987 as required by federal law.⁵ These strategies were developed on the basis of detailed

subregional emission inventories and projections, and mathematical models of pollutant behavior, and consist of stationary and mobile source emission controls and transportation improvements. The BAAQMD, MTC, and California Bureau of Automotive Repair (a state agency) have primary responsibility for implementation of these strategies.

¹ State standards for particulate matter changed in 1983 to concentrate on fine particulate matter which has been demonstrated to have health implications when inhaled. Concentration standards also changed. There is not yet an adopted method for monitoring fine particulate matter. Until the State adopts a method, it is not possible to determine what proportion of TSP in San Francisco would be subject to review against the new standards.

² Association of Bay Area Governments, AQMP Tech Memo 33, "Summary of 1979/1980 Hotspot Monitoring Program," Berkeley, California, June 1980.

³ Association of Bay Area Governments, AQMP Tech Memo 40, "Results of the 1980/1981 Hotspot Monitoring Program for Carbon Monoxide," Berkeley, California, January 1982.

⁴ Bay Area Air Quality Management District (BAAQMD), Base Year 1982 Emissions Inventory, Summary Report San Francisco, California, November 1, 1982.

⁵ Association of Bay Area Governments (ABAG), BAAQMD and MTC, 1982 Bay Air Quality Plan, Berkeley, California, December 1982.

G. EMPLOYMENT AND HOUSING

1. Employment

Approximately 104 employees currently work in the buildings occupying the project site. Of the total number, 98 are office workers and 6 are retail workers.¹ All floor area in both 299 Second Street and 590 Folsom Street, Lots 27, 29 and 35 is currently occupied.

2. San Francisco and Regional Office Space

a. Existing Office Space in San Francisco

San Francisco is the major office center in the Bay Area, with approximately 60.6 million gross square feet of office space at the end of 1982.² The C-3 District had 55.3 million square feet of office space in 1981 and currently has about 62.1 million square feet of office space in 1984.³ Historical data indicates that office space was added at average rates of 1.5 million square feet per year during the 1970s and 2.4 million square feet per year from 1980 through 1982.²

Approximately 19.0 million square feet of net new office space is currently proposed or under construction, but not occupied, in San Francisco. Of this space, 8.7 million is under formal review, 4.8 million has been approved and an additional 5.5 million is under construction or newly constructed. Table C-1 in Appendix C, page A-32, shows the specific projects from which these numbers are taken.

b. Vacancy Rates and Commercial Rents

On the basis of a May 1984 survey of 290 office buildings, the San Francisco Building Owners and Managers Association (BOMA) reported a citywide vacancy rate of 7.0%, a decrease from the 7.1% rate found in the October 1983 BOMA survey.⁴ According to the September 30, 1984 Coldwell Banker survey, the vacancy rate in downtown San Francisco office buildings (new, existing and major renovations) was 9.0%, an increase from the 5.9% reported in the December 1983 Coldwell Banker survey.⁵ The current vacancy rate is estimated to be about 17%.^{5a}

One effect of the historical shortage of office space in San Francisco has been to stimulate office development and increase demand for existing space elsewhere in the Bay Area. Some businesses have moved their clerical, support and production departments to outlying areas while maintaining headquarters and main branch offices in San Francisco. In particular, the City of Oakland, and San Mateo and Contra Costa counties are experiencing increased demand for office space. For example, about 17 million square feet of office space is proposed or under construction in San Mateo County.⁶ This includes projects in various stages of public review, not all of which may be approved or built.

As a result of high demand and increasing operating costs in San Francisco annual rents for office space in the downtown financial district increased steadily throughout the 1970s to approximately \$30 per square foot in 1982. New buildings are able to charge the highest rents, while office rents in older buildings south of Market are less expensive, averaging between \$15 and \$25 per square foot.⁷ The rents for new office space in San Francisco (\$28 to \$40) are about 40-60% higher than commercial rents in Oakland (\$20 to \$25 per square foot); the Peninsula (\$18 to \$22 per square foot); and Walnut Creek (\$22 to \$30 per square foot). Should vacancy rates rise, the pressure for higher commercial office rents would be expected to decline in San Francisco. A rising vacancy rate could lower rents and increase future lessees' choice of size, layout and location of office space.

3. Housing Supply

There were about 320,230 housing units in San Francisco as of January 1984, according to the State Department of Finance.⁸ About two-thirds of the stock is rented and one-third is owner-occupied.⁹ Housing production in the City (as measured by building permits issued) has been predominantly multi-family housing. Between 1978 and 1980, 84% to 87% of residential building permits were for multi-family housing; in 1981 that figure increased to 95%.¹⁰

The nature of the multi-family housing stock (including townhouses, condominiums and apartments) in the City is changing because of conversion of rental units to condominiums and conversion of residential hotels to other uses. Under the Subdivision Code as revised in 1982, the City allows conversion of 200 units of rental housing to condominiums per year. In 1981, about 40% of rental units converted to condominiums were estimated to be

owner-occupied.¹¹ It is further estimated that from 1975 to 1980, approximately 3,700 residential hotel units were demolished or converted to commercial or tourist uses.¹² The demolition and conversion of residential hotel units are regulated by Chapter 41 of the San Francisco Administrative Code, as amended, June 15, 1981 and July 18, 1983.

Several factors indicate that housing demand in San Francisco has heightened over the past decade. The number of households increased by 1.3% from 1970 to 1980 despite a 5.6% decrease in total population. This reflects a decrease in the size of households in San Francisco from 2.34 persons to 2.19 persons, which is a trend typical of many areas during this time.¹³ Although the number of housing units in the City increased by 1.9% over this period, by 1980 the vacancy rate, which indicates the balance between housing supply and demand, remained low at about 0.6% for owner-occupied housing and about 2.7% for rental housing.¹⁴ A survey conducted by the Federal Home Loan Bank of San Francisco in September 1983 indicated a vacancy rate of 0.9% for multi-family units and 1.2% for single-family houses.¹⁵ A vacancy rate of four to five percent indicates a competitive market; the very low rate in San Francisco means that people looking for housing are having difficulties finding new residences. This high demand for housing may also cause further prices increases.

The average market value of a single-family house in the Bay Area was about \$143,400 in 1983; the 1983 San Francisco average was about \$156,600. San Francisco experienced the greatest increase in average market value of all Bay Area cities over the past five years.¹⁶ In 1980 the median contract rent was \$267,¹⁷ which in 1984 dollars would amount to more than \$341.

The percentage of San Francisco's employed population that works in the City has decreased from more than 80% in 1970 to 75% in 1980. This suggests that fewer people who are finding work in the City are also finding housing here. However, the number of San Francisco residents working in the financial, insurance and real estate (FIRE) sectors increased during this period by more than 6,000. This represents about 33% of the total increase for jobs in this sector of the City.¹⁸ The Department of City Planning projects that as many as 40% of office workers would desire to move to San Francisco upon finding work in the City.

In addition to the above-noted decrease in household size, other sources of pressure on San Francisco's housing demand include the expansion of downtown office space, increased land, labor and materials costs, immigration from abroad, high interest rates, and limited land for housing. There are also regional housing impacts. There were just over two million housing units in the nine-county Bay Area in 1980. About one-third of the units were in the East Bay (Alameda and Contra Costa counties), about one-third on the Peninsula (San Mateo and Santa Clara counties), about 16% in San Francisco, 10% in the North Bay (Marin and Sonoma counties) and 6% in Solano and Napa counties.¹⁹

The limited information available on housing production in Bay Area counties suggests that the markets have been depressed in recent years. Regionally, single-family permits declined in 1979, 1980 and 1981. Alameda, Contra Costa, San Francisco, San Mateo and Sonoma County single-family permit issuances rose from 1978 to 1979, but then declined in 1980. Regional multi-family rental unit permits have declined every year between 1977 and 1981. Conversely, condominium permits increased between 1977 and 1980 and decreased in 1981.²⁰ The housing recovery trend in the Bay Area during the fourth quarter of 1983 showed a 99% increase in building permits issued over the level reported during the fourth quarter of 1982.²¹

¹Based on employment survey conducted by Environmental Planning Impact Corporation, October 1, 1984.

²San Francisco Department of City Planning, Major Office Building Construction in San Francisco Through 1982, March 15, 1983.

³San Francisco Department of City Planning, Downtown Plan EIR, EE.81.3, certified October 18, 1984, pages IV.B.2 and IV.B.17.

⁴Elmer Johnson, Building Owners and Managers Association, telephone conversation, February 21, 1984. Updated November 12, 1984.

⁵Coldwell Banker, Office Vacancy Index of the United States, December 31, 1983. San Francisco vacancy rates are part of a national survey of 28 major downtown districts conducted quarterly. A copy of the December 1983 survey is on file and available for public review at the Office of Environmental Review, 450 McAllister Street, Fifth Floor.

● ^{5a}City and County of San Francisco, San Francisco Office Development Limitation Program, First Review Period, March 20, 1986.

- ⁶Blayney-Dyett, Urban and Regional Planners, Proposed Specific Plan: Bayshore Office Park and Baylands Development Area, Brisbane, California, July 1982; and Metropolitan Transportation Commission, Travel Impacts of Proposed Development on the Peninsula Along Route 101, September 9, 1982.
- ⁷William Cumbelich, Senior Sales Consultant, Office Building Specialist, Coldwell Banker, telephone conversation, February 24, 1984.
- ⁸California Department of Finance, Population Research Unit, Population and Housing Estimates for California Cities and Counties, Summary Report E-5, April 27, 1984.
- ⁹U.S. Bureau of the Census, 1980 Census Information, File STF 1-A, Report #4, March 1982, Tables 25 and 26.
- ¹⁰ABAG, San Francisco Bay Area Housing Activity Report, No. 4, May 1982, page 21.
- ¹¹San Francisco Department of City Planning, Condominium Research, Preliminary Progress Report, December 1981.
- ¹²San Francisco Department of City Planning, A Study of the Conversion and Demolition of Residential Hotel Units, December 1980, page 17.
- ¹³San Francisco Department of City Planning, Residence, A Proposal for Citizen Review, June 1982, Table 4.
- ¹⁴Real Estate Research Council of Northern California, Northern California Real Estate Report, Vol. 33, No. 1, April 1981. Updated to October 1982 by James Davis, Executive Director, telephone conversation, December 28, 1982.
- ¹⁵Federal Home Loan Bank of San Francisco, "San Francisco County Housing Vacancy Survey," April 1984.
- ¹⁶Data provided in Northern California Real Estate Report, Volume 34, Number 3, Real Estate Research Council of Northern California, updated in telephone conversation with James Davis, Executive Director, February 24, 1984.
- ¹⁷1980 Census Information, File STF1-A, op. cit., Housing, Table 44. Escalation to 1984 dollars based on a 27.9% increase in the Consumer Price Index.
- ¹⁸U.S. Bureau of the Census, Population Census 1970 and 1980, and County Business Patterns 1970 and 1980.
- ¹⁹Real Estate Research Council of Northern California, op. cit.

²⁰ ABAG, San Francisco Bay Area Housing Activity Report, No. 4, May 1982.

²¹ Real Estate Research Council of Northern California, Real Estate and Mortgage Finance Trends, No. 154, March 1, 1984.

H. NOISE

The major noise source in the project vicinity is traffic on Second and Folsom Streets. Noise measurements made in May 1981 directly across Folsom Street from the project site showed an L_{eq} ¹ of 73 dBA² with instantaneous noise events up to 87 dBA.

The City and County of San Francisco Board of Supervisors has adopted the day/night average noise level (L_{dn})^{3,4} to describe community noise environments. The L_{dn} is a single number noise rating used to describe the average noise level over a 24-hour period. For traffic noise environments, the L_{dn} is approximately equal to the peak-hour L_{eq} .

The impact of construction and operation noise on the uses inside nearby buildings is dependent upon distance from the source of the noise as well as the amount of noise reduction experienced between the outside and inside of the building. An open window would increase noise levels by about 15 dBA, while fixed windows would reduce noise levels by about 30 dBA.

The occupied land uses near the proposed site are office buildings on Second and Folsom Streets. An office building is approved for construction directly south across Folsom Street from the project site. This building would have fixed windows and be mechanically ventilated.

The Pacific Bell office building on Second Street, on the southwest corner of the Second and Folsom Street intersection, has a building facade with window glass covering 10% of the surface; all windows are operable. This building houses the wire center (i.e., mechanisms for telephone switching) for San Francisco. There are few offices in this building; it is principally filled with equipment.

A small Victorian office building across Second Street to the west of the project has operable windows. Six units of residential space with operable windows are located within 50 feet east of the project along Folsom Street.

¹ L_{eq} : The equivalent steady-state sound level which in a stated period of time would contain the same acoustic energy as the time-varying sound level during the same time period.

²dBA: Decibel corrected for the variation in frequency response to the typical human ear at community-encountered noise levels.

³L_{dn}: An averaged sound level measurement, based on human reaction to cumulative noise exposure over a 24-hour period, which takes into account the greater annoyance of nighttime noises. Noise between 10 p.m. and 7 a.m. is weighted 10 dBA higher than daytime noise.

⁴Persons unfamiliar with the terminology and fundamental concepts of environmental acoustics are referred to Appendix D, page A-45.

IV. ENVIRONMENTAL IMPACTS

A. ISSUES NOT ADDRESSED

An Initial Study was prepared for the 299 Second Street Project to identify its potential environmental effects; these issues are covered in this EIR. Certain potential environmental issues were determined to be insignificant and are therefore not addressed in this EIR. These include Construction-Related Air Quality Impacts; Light and Glare; Operational Noise; Impacts from Odors/Burning of Materials; Utilities and Public Services (with the exception of Fire Protection Services); Geology/Topography; Water; Hazards; Cultural Resources and Biology. A copy of the Final Initial Study is attached to this report as Appendix A, page A-1.

Not all issues covered in the EIR are physical environmental impacts as defined under the California Environmental Quality Act (CEQA). They are provided for informational purposes only.

B. LAND USE AND ZONING

The proposed structure would contain a mix of office and restaurant/retail space totalling about 329,075 gross square feet (gsf), with approximately 267,760 gsf of office space, approximately 5,580 gsf of restaurant space, and about 10,000 gsf of retail use. Two basement levels of the structure would contain approximately 45,735 gsf of parking, which would provide about 131 short-term, independently accessible parking spaces. Pursuant to Section 161(c) of the Planning Code, no off-street parking is required in a C-3 district. However, up to seven percent of the gross floor area of the structure, or 23,035 square feet (66 spaces), is allowed as an accessory use under Section 204.5(c) of the Planning Code and can be excluded from FAR calculations under Section 102.8(b)7 of the Planning Code. All structures currently on the site would be demolished.

The proposed project would increase the density of office development on the site. Office space would be increased by 232,760 gsf (267,760 gsf proposed, less 35,000 gsf existing), restaurant space would be increased by 3,630 gsf (5,580 gsf proposed, less 1,950 gsf existing), and retail space by 10,000 gsf (10,000 gsf proposed, less no existing space). There would be an increase of 57 parking spaces (131 proposed spaces, less 74 existing).

1. Planning Code

In order to provide for an orderly expansion of the financial district in a way that will maintain a compact downtown core, and to create an area in which to direct unused development potential of lots containing Significant or certain Contributory buildings, a special use district known as the Downtown Office Special Development District (also referred to as the C-3-0 (SD) District) has been created through the Planning Code to implement the Downtown Plan. Development at densities above the base floor area ratio in this area is appropriate only if there is a commensurate reduction in the allowable density of development on other sites in the downtown by the transfer of development rights from eligible sites as provided in Section 128 of the Interim Controls. The base FAR for the project site would be 6:1, but up to 75% of the ground-floor uses and ground level open space that would be excluded from the FAR calculations in the C-3-0 district (see page 29 of the Downtown Plan) could be excluded here as well. The project contains 26,027 gsf of ground-floor uses and ground level open space; up to 75% (19,520 gsf) of that total (not to exceed 5,000 gsf per use) could be excluded from FAR calculations under

- Section 102.8(b)12 of the Planning Code. Additionally, pursuant to Section 102.8(b)7 space qualifying as open space can be excluded from FAR calculations. Therefore, the proposed
- project could exclude 16,435 gsf (5,000 gsf of restaurant; 5,000 gsf of retail; 6,435 gsf of open space) from its gross floor area for the purpose of calculating the project FAR. Thus, under Downtown Plan guidelines, the effective FAR for the project would be 9.4:1.³ Floor area in excess of the base FAR of 6:1 would be achieved via use of Transferable
- Development Rights pursuant to Section 128 of the Planning Code.

The project is located in a 200-S height and bulk district and conforms to height requirements of the Planning Code. With regard to bulk, the maximum height above which the length and diagonal dimensions apply is 100 feet. Between 100 and 160 feet, the maximum permitted building width is 160 feet, and the maximum permitted diagonal dimension is 200 feet. Above 160 feet, the maximum permitted building width is 140 feet, and the maximum average diagonal dimension is 160 feet. The new building would not conform to these bulk requirements above 160 feet, and would require Conditional Use authorization from the City Planning Commission pursuant to Section 303 of the Planning Code. A balcony at the 13th floor of the project would require review under Section 303, as it would exceed bulk requirements.

The project site is located in a C-3-0 (SD) district, designated in the Downtown Plan as a receiver area for the transfer of development rights from architecturally significant and contributory buildings, or under certain circumstances, from unrated buildings in some conservation districts. The C-3-0 (SD) district is intended to serve as an extension of the downtown office district.

Pursuant to Section 153(a)6 of the Planning Code, two service vehicle spaces can be substituted for one full-size loading space. The project would include three full-size spaces and two service vehicle spaces, thus conforming to Planning Code requirements.

- Table 2, page 59, compares the proposed project to the Planning Code. The project would conform with the Planning Code for height, provision of ground floor uses, open space, transportation systems management, off-street loading, and incorporation of art. The

● TABLE 2
COMPARISON OF THE PROJECT TO PLANNING CODE

<u>Development Control</u>	<u>Planning Code</u>	<u>Project</u>
Base FAR (Section 124)	6:1 (base) 18:1 (max.)	9.4:1 ¹ (Through the use of TDRs at Section 128 of Planning Code
Height Limit (Exhibit B)	200'	200'
Bulk (Section 270)		
<u>Base</u>		
Height	Up to 1.25 x width of the street (Second Street = 80'); full site coverage up to 100'	Project would conform to Planning Code; full site coverage up to 50'
<u>Lower Tower</u>	from 100' - 160'	from 50' - 162.5'
Maximum Diagonal	190'	196'
Maximum Width	160'	158'
	max. ave. floor space = 20,000 gsf	max. ave. floor area = 19,250 gsf
<u>Upper Tower</u>	from 160' - 200'	from 162.5' - 200'
		(Project exceeds bulk limits of Planning Code for upper tower from 160' to 162.5')
Maximum Diagonal	160'	152'
Maximum Width	130'	133'
	max. ave. floor size = 12,000 gsf max. floor size = 17,000 gsf	max. ave. floor size = 12,760 max. floor size = 15,700 gsf
	(continued)	

● TABLE 2
COMPARISON OF THE PROJECT TO PLANNING CODE

Development Control	Planning Code	Project
Setbacks (Section 132.1)	15' setback on east side of project site	Project would include a setback of 10' along the interior lot line, 5 feet less than the required 15', but could be allowed by Conditional Use authorization pursuant to exception provision in Section 132.1(c).3.
Wind (Section 148)	On Clementina Street: minimum 4' sidewalk widening, 14' setback at streetwall height of 60'	Project would conform to Planning Code
Exclusion of Floor Area (Section 102.8(b)13)	11 mph in pedestrian areas; 7 mph in public seating areas	Project would conform to Planning Code
	Up to 75% of interior floor area and ground level open space permitted for exclusion from FAR is allowed, not to exceed 5,000 gsf per use.	26,027 sq. ft. of ground floor uses; up to 19,520 gsf can be excluded from FAR calculation, including restaurant and retail space. Project would exclude 5,000 gsf of retail space and 5,000 gsf of restaurant space.
(Section 102.8(b)14)	All open space required by Section 138 (see below).	Project would exclude 6,435 gsf of open space.
Recreation/Open Space (Section 138)	1 sq. ft. open space/50 gsf of gross floor area = 5,805 sq.ft.	Project would include 6,435 sq.ft., in exceedance of the Planning Code requirement.

(continued)

● TABLE 2
COMPARISON OF THE PROJECT TO PLANNING CODE

<u>Development Control</u>	<u>Planning Code</u>	<u>Project</u>
Parking (Sections 204.5(c), 157, 158, and 303 of Planning Code and Interim Controls)	Planning Code has no requirement (Discourages new long-term parking in downtown). 7% of gsf = 23,035 allowed as accessory use.	131 short-term, independently accessible spaces, or 45,735 gsf. 23,035 gsf (66 spaces) allowed as accessory use; 22,700 gsf (65 spaces) considered as Conditional Use.
Off-street Loading (Section 152.5)	0.1 spaces per 10,000 gsf of office space; 1 space per 10,000-30,000 gsf of restaurant/retail space. 4 spaces are required.	3 full-size and 2 service vehicle spaces provided ²
Incorporation of Art (Section 149)	Art equal to 1% of total construction costs.	Project would conform to Planning Code.
Shadows on Property Under Jurisdiction of Recreation and Park Commission (Section 295)	No shadows cast on Recreation and Park Department property between first hour after sunrise and last hour before sunset.	Project would conform to Planning Code.

(continued)

● TABLE 2
COMPARISON OF THE PROJECT TO PLANNING CODE

<u>Development Control</u>	<u>Planning Code</u>	<u>Project</u>
Transportation Management Programs (Section 163)	Provision of transportation brokerage services for projects with at least 100,000 gsf of office space.	Project would conform to Planning Code.
Vertical Extensions (Section 260(b)(1)(G))	Vertical extensions, such as spires, permitted up to 75 feet above the height otherwise allowed.	Project would conform to Planning Code.
Mechanical Penthouse (Section 260(b)(1)(F))	Not to exceed 20 feet above the height otherwise allowed, measured at the average height of the slope of the rooftop (Section 260(a)(2)).	Project mechanical penthouse equal to 20' in height.

¹The Downtown Plan restricts ground floor uses in the C-3-O district to: retail; building circulation; open space features; pedestrian circulation; cultural, religious, social service, recreational and educational facilities available to the general public; and building service. Uses other than open space can be excluded from calculations of allowable gross floor area, up to 75% of the interior floor area and not to exceed 5,000 gsf per use. One hundred percent of ground level open space can be excluded. As calculated under the Downtown Plan, the project FAR would be 9.4:1.

²Planning Code Section 153(a)6 allows substitution of two service vehicle spaces for one full-size space.

- project would conform to setback exception requirements of the Planning Code. The project would conform to Sections 157, 158, 204.5(c), and 303 regarding that portion of the parking area (22,700 gsf) considered as a conditional use.

The project would not conform to the bulk requirements for the upper tower, at Section ● 270(d)(3) of the Planning Code. While maximum diagonal and maximum width dimensions ● essentially conform to the Planning Code (see Table 2, page 59), maximum average floor size is 12,760 gsf, in excess of the 12,000 gsf permitted. Further, there is no distinct stepback at the thirteenth floor, where the upper tower begins. Instead, a screen wall to create a visually apparent transition between the lower and upper towers continues above the stepback line, while the floor area of the upper tower floors is reduced from the lower tower floor area average. The screen wall would require approval by the City Planning Commission under Section 272 of the Interim Controls. Such approval would require a determination that a distinctly better design is achieved while carrying out the intent of the bulk limits, or that the building provides significant public service benefits, and that the added bulk does not add significant wind and shadow impacts or affect light and air to adjacent structures, that the design incorporates features intended to mitigate the increased bulk and that the building is made compatible with the character of the surrounding area in terms of building pattern, height, facade materials and preservation of the pedestrian environment.

2. Comprehensive Plan

There are several objectives and policies of the Commerce and Industry Element⁴ that would apply to the proposed project. The discussion below analyzes the relationship of the project to those objectives and policies.

Objective 6: "Maintain and improve San Francisco's position as a prime location for financial, administrative, corporate and professional activity." (page 24)

Policy 1: "Encourage continued growth of prime downtown office activities so long as undesirable consequences of such growth can be avoided." (page 24)

Policy 2: "Guide location of office development to maintain a compact downtown core so as to minimize displacement of other viable uses." (page 25)

Policy 3: "Assure that downtown development is compatible with the design and character of San Francisco." (page 26)

Policy 4: "Provide adequate amenities for those who live, work, and use the downtown." (page 27)

The project would supply office and retail space to meet the needs of San Francisco's expanding financial, insurance, real estate (FIRE) and administrative activities.

The project would maintain a compact downtown core by replacing and intensifying office, restaurant and retail uses. In addition, the site is accessible to a range of travel modes including Muni, AC Transit, BART and the regional freeways. Further, the project's location would be compatible with existing development, as well as uses proposed in both the Downtown Plan and the Rincon Hill Plan.

Towards meeting the policy of providing adequate amenities for downtown residents and workers, the proposed project at this stage of the design process would include 6,435 square feet of open space in the form of sitting areas and a greenhouse, 10,000 square feet of retail space, and 5,580 square feet of restaurant space. The amount of open space included in the project exceeds the amount required under the Downtown Plan by 635 feet.

Shops and restaurants--amenities offered by the proposed project--would enhance the commercial viability of this part of Second Street. The proposed project's location on Second and Folsom, one block from the Moscone Center, encourages use of the retail facilities by conventioners, both during the daytime and evening. The project would also be within walking distance of proposed residential uses on Rincon Hill. In addition, the project site's accessibility by public and private transportation promotes its use by local and regionally based consumers.

¹ City and County of San Francisco, Department of City Planning, The Downtown Plan, August 1983, amended June, October, and November, 1984, page 23.

² Ibid., page 26.

³ City and County of San Francisco, Department of City Planning, City Planning Code at Section 102.8(b)13. Calculation of FAR is as follows: total gross floor area = 329,075 gsf; 7% exclusion for accessory parking area = 23,035 gsf; ground floor uses exclusion =

IV. B. Environmental Impacts:
Land Use and Zoning

- 16,435 gsf. Net gross floor area = 290,105 gsf; project site area = 30,890 gsf. FAR = $290,105 \text{ gsf} / 30,890 \text{ gsf} = 9.4:1$.

⁴City and County of San Francisco, Department of City Planning, Commerce and Industry Element of the Comprehensive Plan, adopted by Resolution No. 8001 of the City Planning Commission on June 29, 1978.

C. URBAN DESIGN AND VISUAL QUALITY

Visual impacts of the proposed project would derive from its physical layout, size, shape, bulk, height, construction materials and landscape elements. Principal areas of concern about the project's visual and design impacts include the potential for view blockage from surrounding areas; architectural compatibility of the proposed building with surrounding buildings; and mass and scale relationships between the project, adjacent structures and the pedestrian environment.

The proposed project would affect the existing visual character of the South of Market area near the intersection of Second and Folsom Streets. The project would be viewed from Second Street looking both north and south, and along Folsom Street looking east and west within a one- to two-block distance from the project site. Mid-range views of the project would principally be from freeway overpasses near the site. Longer-range views would be obtained from Potrero Hill.

The four-story base would be 50 feet high along Folsom Street and 60 feet high along Clementina Street because of the site's slope. The building's nine-story lower tower would rise to about 162.5 feet above ground level, with the upper tower rising from 162.5 feet to 200 feet. The highest point of the building, the tower extension, would be the top of a sloping penthouse roof set at 228 feet above Folsom Street (Figures 17, 18 and 19, pages 67 through 69).

A number of policies contained in the Urban Design Element of the San Francisco Comprehensive Plan, to which the project may be compared for visual quality and urban design issues, relate to the project area and the proposed building. The Urban Design Element guides new development to enhance the physical environment. The discussion below compares the project to the policies of the Urban Design Element.

Major New Development Policy 3: "Promote efforts to achieve high quality of design for buildings to be constructed at prominent locations (page 36)."

The discussion under Policy 3 notes:

Certain buildings will achieve visual prominence, whatever their design, because of their exposed locations. Among such locations are ... those facing wide streets or

PHOTOMONTAGE: LOOKING NORTH ON SECOND STREET

FIGURE 17

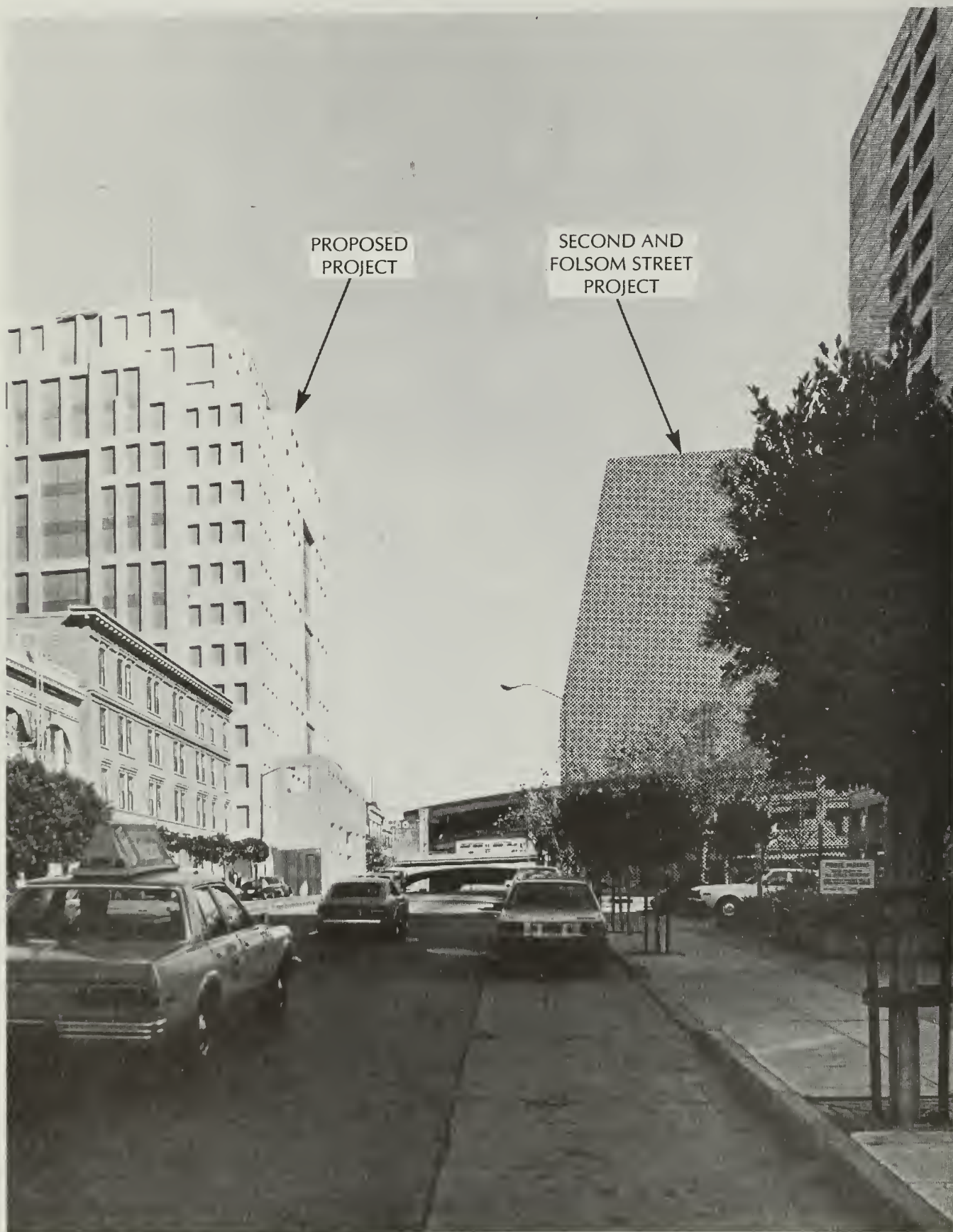
SOURCE: EIP CORPORATION



PHOTOMONTAGE: LOOKING EAST ON FOLSOM STREET

FIGURE 18

SOURCE: EIP CORPORATION



PHOTOMONTAGE: LOOKING SOUTH ON SECOND STREET

FIGURE 19

SOURCE: EIP CORPORATION



closing the vista at the end of a street; and those affording a silhouette against the sky ... At locations of such prominence, the quality of building design is of special significance, and special efforts should be made to promote the best architectural solutions ... (page 36).

The project would form part of a complex of new development either built or in the process of construction at the intersection of Second and Folsom Streets. The overall "architectural solution" and its appropriateness is analyzed with respect to the policies of the Urban Design Plan as follows.

City Pattern Policy 3: "Recognize that buildings, when seen together, produce a total effect that characterizes the City and its districts." (page 10)

City Pattern Policy 6: "Make centers of activity more prominent through design of street features and other means." (page 12)

The project would contribute to the larger-scale pattern of buildings being constructed at the intersection of Second and Folsom Streets. The project would emphasize street space along Clementina, Folsom and Second Streets by its height and through its design, with an arcade wrapping around the building, open areas for sitting, and through the use of clear glass on the street-level retail areas.

Conservation Policy 6: "Respect the character of other development nearby in the design of new buildings." (page 25)

Major New Development Policy 1: "Promote harmony in the visual relationships and transition between new and older buildings." (page 36)

Major New Development Policy 2: "Avoid extreme contrasts in color, shape and other characteristics which will cause new buildings to stand out in excess of their public importance." (page 36)

Major New Development Policy 5: "Relate the height of buildings to important attributes of the city pattern and to the height and character of existing development." (page 36)

Major New Development Policy 6: "Relate the bulk of buildings to the prevailing scale of development to avoid an overwhelming or dominating appearance in new construction." (page 37)

Street-level retail establishments and restaurants lie in the project area at the Market/Second and Mission/Second intersections. There is also a cafe on the project site.

The ground floor of the proposed project would contain a restaurant with greenhouse windows and retail stores uncharacteristic of the majority of existing ground-floor patterns in the project block along Second Street, but similar to uses north of the project site. Windows throughout the building would be non-reflective for pedestrian viewing. The project's height, bulk and overall design would be larger than surrounding older buildings on Second Street to the north, but compatible with larger-scale development immediately to the south. The exterior texture of the building facade would be concrete and granite, similar to surfaces of newer structures, but different than the older wood-frame buildings in the project area. The building would be stepped back at the upper levels.

Visually, the 200-foot-high proposed project would be of similar height to other nearby highrises either under construction or recently completed. A 150-foot office building at the southeast corner of Second and Folsom Streets is approved for construction. The southwest corner of the intersection is occupied by an 18-story office building with a parapet screen wall set at 210 feet. The proposed project's 50-foot-high base would reflect the height of a four-story Victorian office structure at the northwestern corner of the intersection. However, the project would contrast with smaller-scale buildings aligning Second Street to the north and on the north side of Folsom Street.

The Downtown Plan policies for the vicinity include permitting office and office support uses up to 200 feet in height. The project site is adjacent to parcels with permitted heights up to 350 feet. Hence, differences in height and scale between the proposed project and surrounding smaller buildings could decrease in the future should new, taller buildings replace smaller buildings in the immediate project vicinity in accordance with the Downtown Plan.

The existing system of street trees and landscape elements along Second Street would continue along the project's frontage and be extended along Clementina Street.

The project would contain a four-story atrium, including a restaurant, along Folsom Street allowing natural light to penetrate interior portions of the building used by the public.

The Urban Design Plan discussion under Neighborhood Environment Policy 14 notes:

"No other element in the street environment is more disrupting than exposed parking. Parking lots and open parking decks break the building facades and stand as large voids in visual interest. Exposed vehicles clutter the pedestrian's view and reduce the sidewalk to a narrow corridor between rows of automobiles." (page 57)

Removing the surface parking lots occupying part of the project site would contribute to the pedestrian sidewalk environment of the area. The two existing surface parking lots are accessed from Clementina Street. The project would include below-grade parking and a loading dock area. Both of those facilities would be accessed from Clementina Street so that pedestrian flow would not be altered.

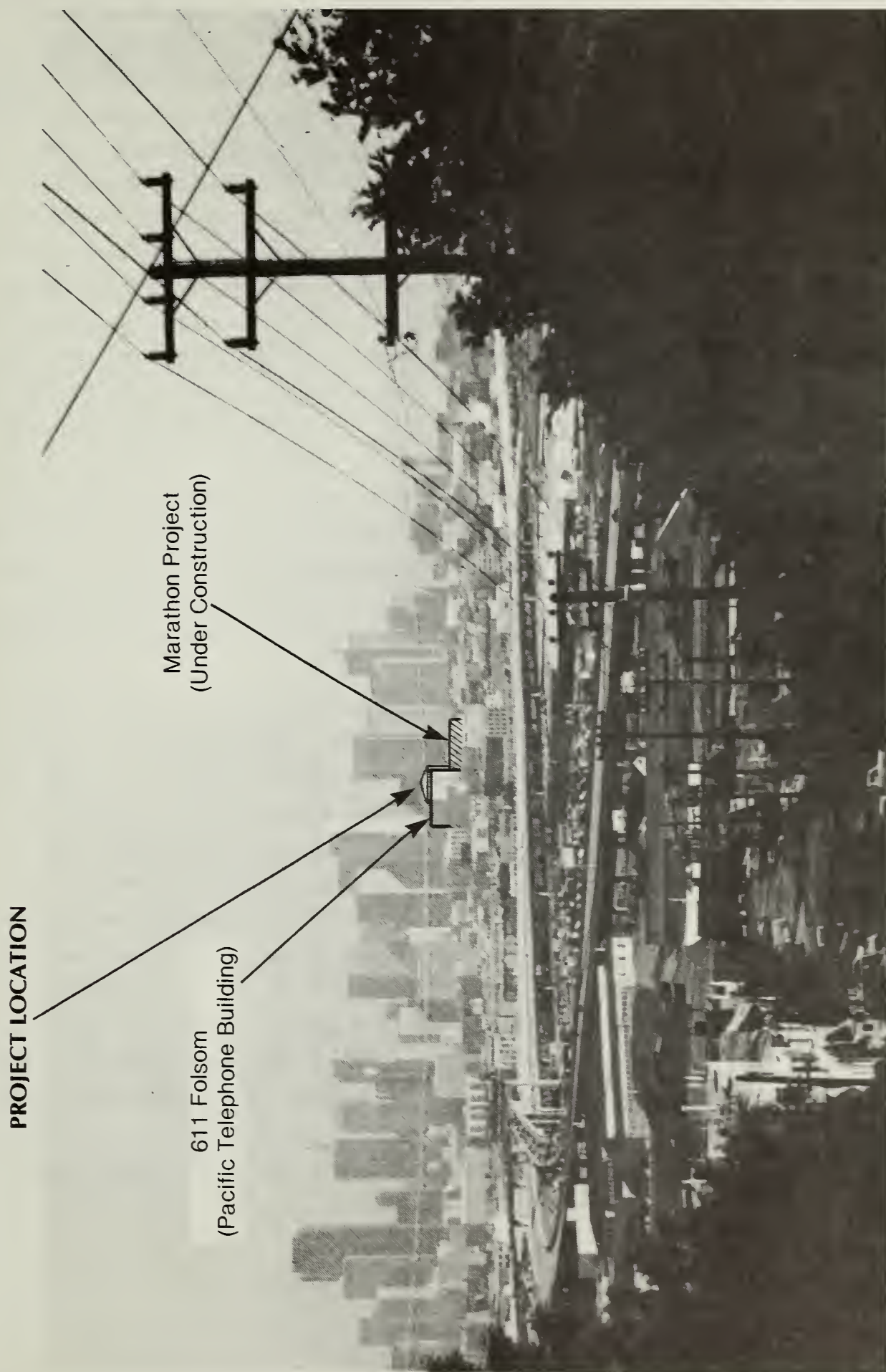
Major New Development Policy 9: "Encourage a continuing awareness of the long-term effects of growth upon the physical form of the city." (page 40)

High-rise projects proposed, approved, or under construction in the South of Market area reflect current trends in downtown development. Cumulatively, new, taller construction predominates as older, smaller structures continue to be removed and vacant parcels are used for new construction. The project's tower would be viewed as a new element in the City's emerging form of taller buildings covering an increasing land area, including the Financial District and South of Market area (Figure 20, page 73). It would present another new high-rise structure to contrast with the older, low- and mid-rise groups of area buildings. The project would conform with the general shift of new office development into the South of Market area.

City Pattern Policy 1: "Recognize and protect major views in the City with particular attention to those of open space and water." (page 10)

Views from below about the fourth floor in project area buildings are confined to short distances due to surrounding buildings of equal or greater height. Consequently, the proposed structure would not affect already blocked views below this level in surrounding buildings. However, at increasing heights in taller buildings, views outward would be partially obstructed up to the top of the proposed tower. The degree of view blockage would vary considerably with changes in elevation and observer location with respect to the project. Generally, the farther away from the project the observer would be located, the less view blockage would occur; closer to the project, the observer would experience greater view blockage. The project's tower would be expected to most directly affect

SOURCE: EIP CORPORATION



IV.C. Environmental Impacts:
Urban Design and Visual Quality

views of the downtown from office buildings to the south and southwest. Occupants of the tower's upper floors would have views of downtown San Francisco, the South of Market area, and east toward the Bay and adjacent land areas.

D. SHADOW AND WIND

1. Shadow

Figures 21-25 on pages 76-80, indicate shadow patterns the proposed building would project during various portions of the year. The analysis is for periods when the sun would be lowest in the sky (December 21), through periods when the sun would be highest in the sky (June 21). The times of analysis are 10 a.m., noon, and 3 p.m., when the project would cast maximum and minimum shadows during the various seasons. Shadows are not shown on building rooftops. Generally, only those existing shadows in the immediate vicinity of the project that may overlap with project-generated shadows are shown. Shadows from the proposed project are only shown to the point where they are new shadows, not where they merge with existing shadows.

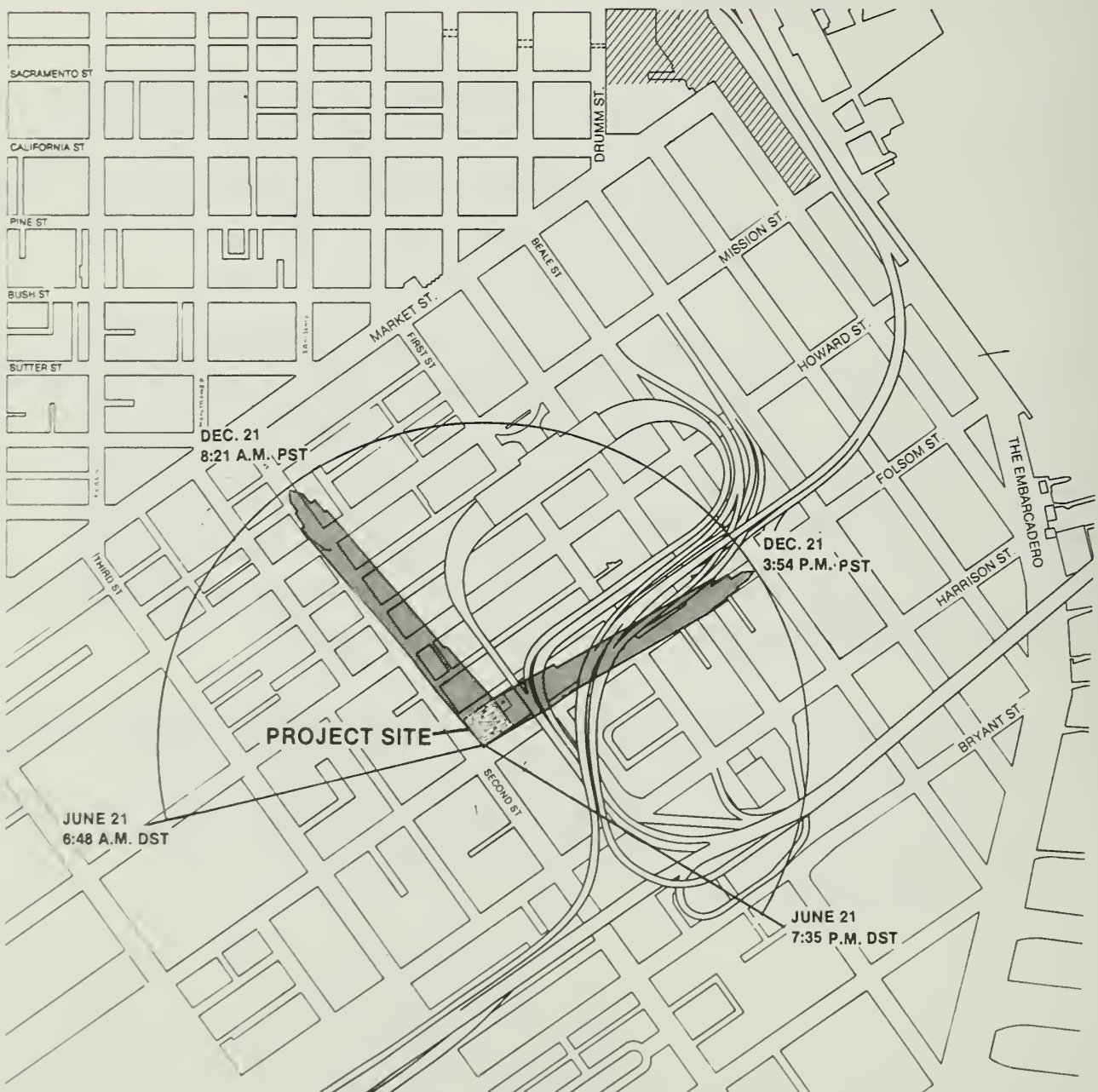
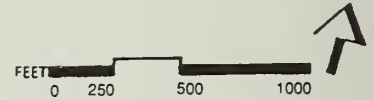
Many of the project's shadows would fall in areas shadowed by existing development or buildings under construction, and would not increase shadowed areas. However, overall project shadow impacts would vary according to the season and time of day. Sunlight would no longer reach the windows of structures near the project site that fall within project-induced shadows, as shown on the shadow diagrams.

Project shadows would most affect the pedestrian environment through the year between 10 a.m. and 3 p.m. At various times, shadows would be cast on portions of Second and Clementina Streets. To summarize the shadow diagrams, impacts on Second Street would occur in the morning from April through September. Clementina Street would be affected until 2:00 p.m. throughout the year. Minor shadow impacts would occur on Folsom Street after 3 p.m. from March 21 to June 21, and on Howard Street from approximately 8:00 a.m. to 10 a.m., Tehama Street from 12 noon to 1:00 p.m., and between the Embarcadero Freeway and East Bay Terminal ramps at 3 p.m. during December.

In response to the requirements of Proposition K, the shadow impact analysis considered potential project impacts on properties under the jurisdiction of the Recreation and Park Commission. In the project vicinity, shown in Figure 21 on page 76, , there is no existing property under the jurisdiction of the Recreation and Park Commission that would be affected by project shadows.

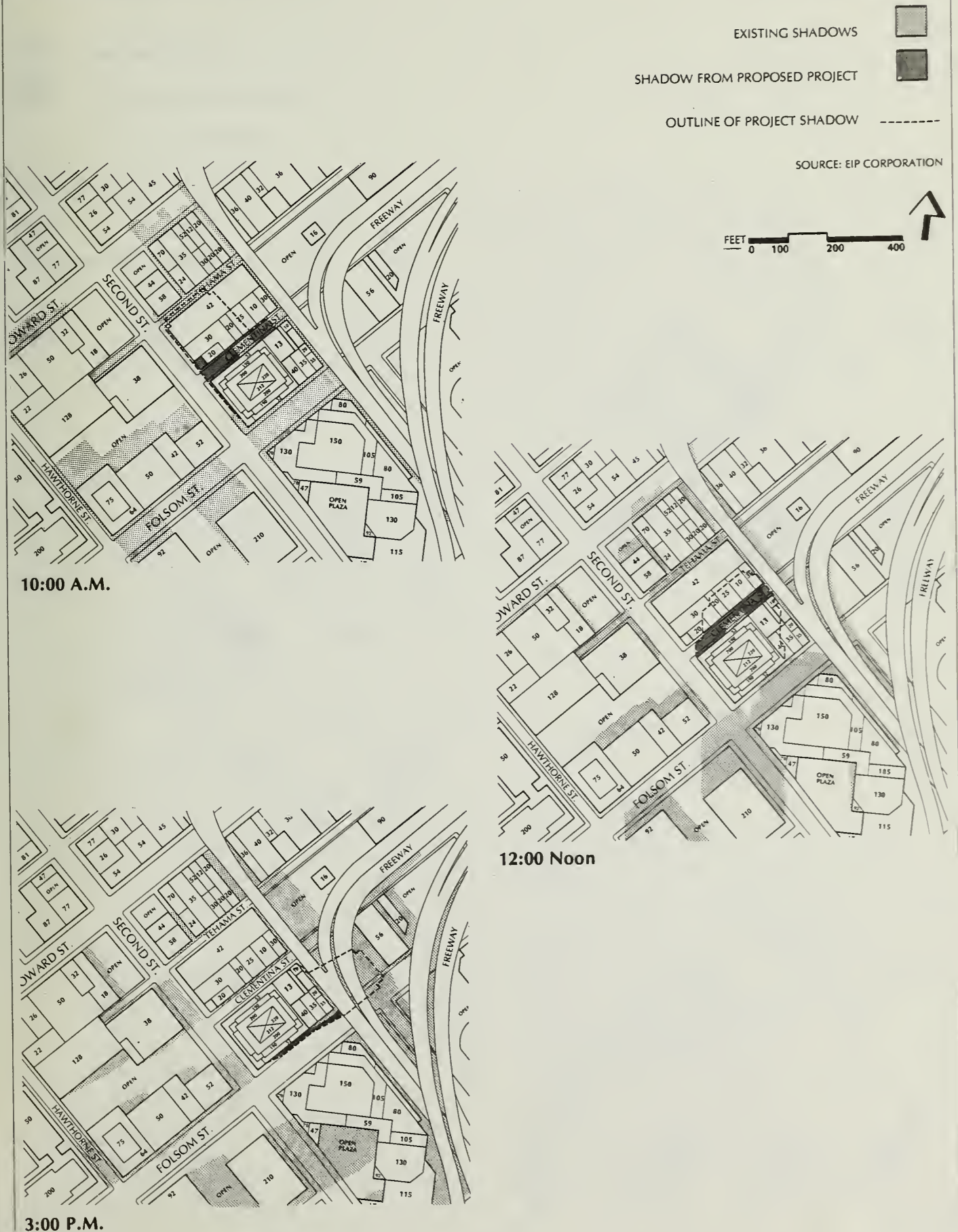
RECREATION AND PARK DEPARTMENT PROPERTY
SUBJECT TO PROPOSITION K IN PROJECT VICINITY

SOURCE: EIP CORPORATION



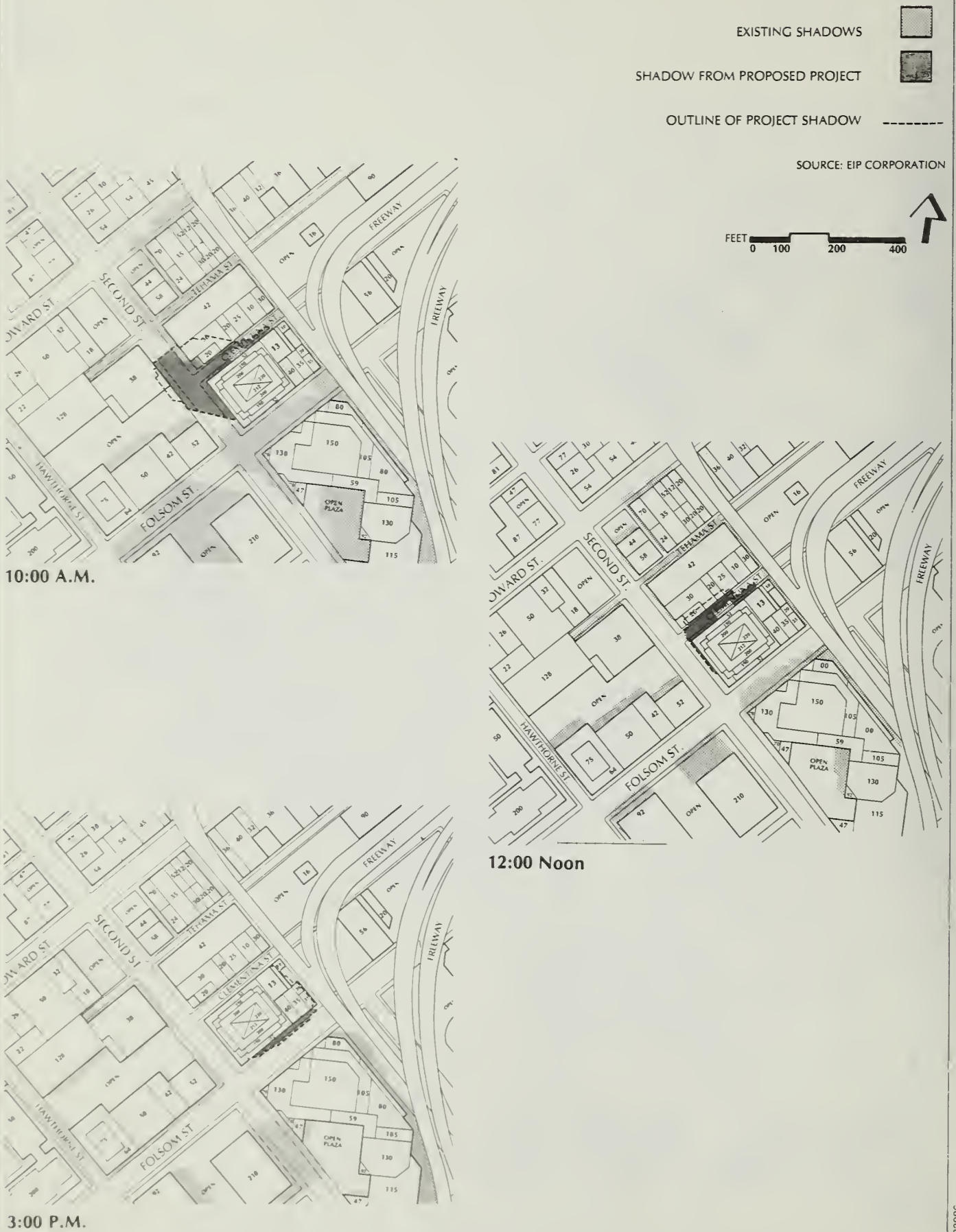
SHADOW PATTERNS: MARCH 21 PST

FIGURE 22



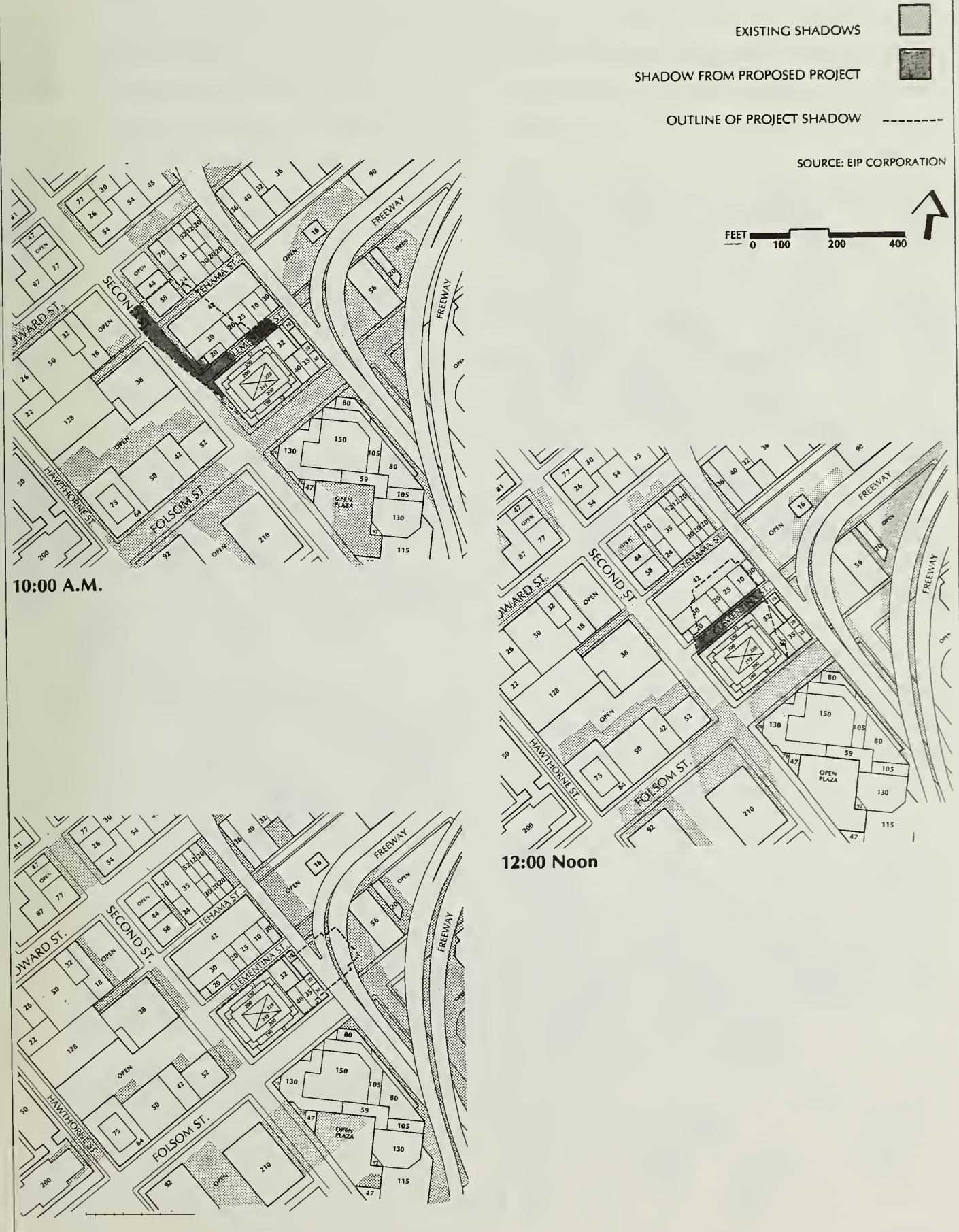
SHADOW PATTERNS: JUNE 21 PDT

FIGURE 23



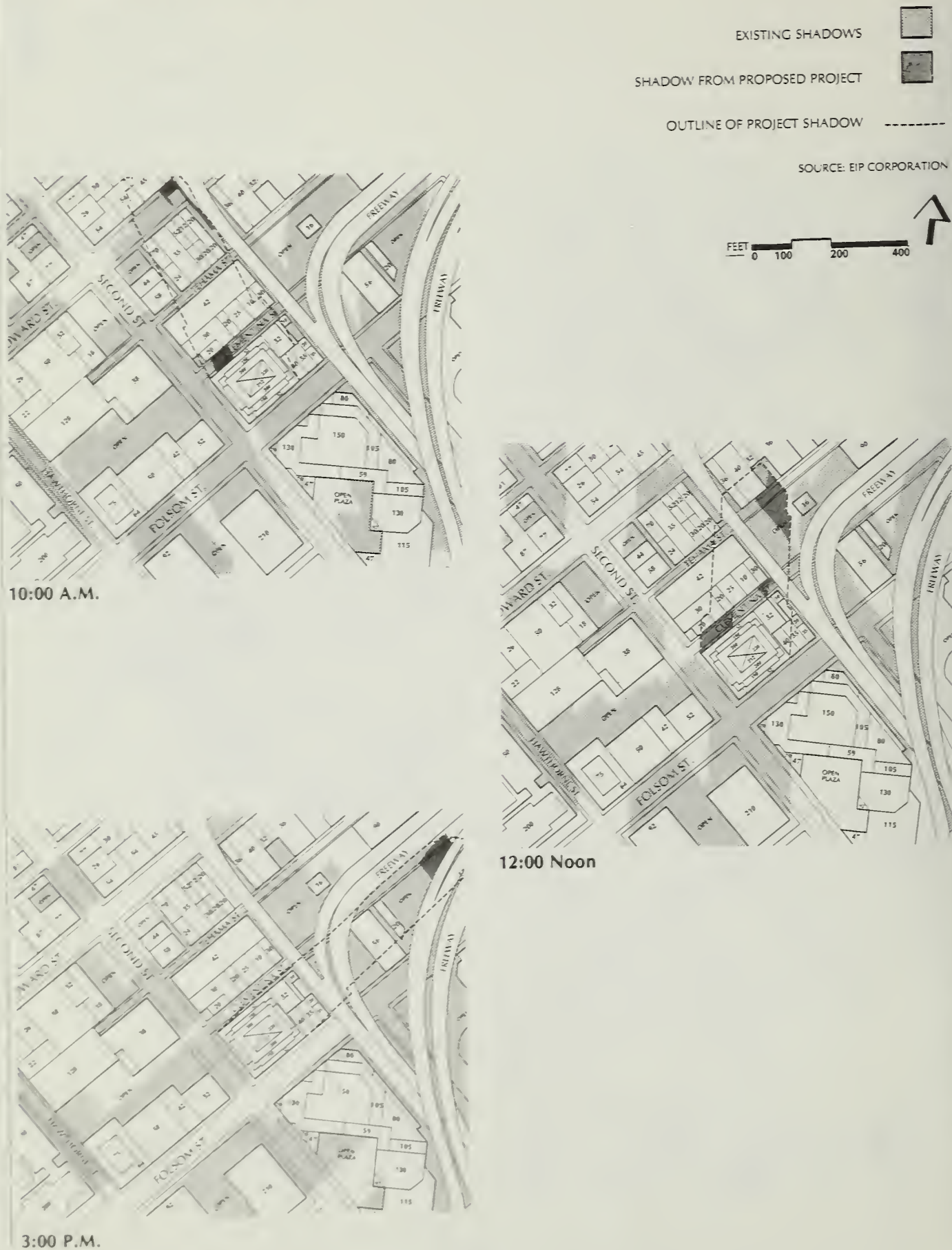
SHADOW PATTERNS: SEPTEMBER 21 PDT

FIGURE 24



SHADOW PATTERNS: DECEMBER 21 PST

FIGURE 25 ●



● 2. Wind

Prevailing winds in San Francisco are from the northwest, west-northwest, west and west-southwest. Wind tunnel measurements were made at 26 surface locations near or within the project site for each of the prevailing wind directions using a scale model of the site, the project and vicinity. The study included separate tests of northwest, west-northwest, west and west-southwest winds under the existing conditions (the approved 35 Hawthorne Street, 75 Hawthorne Street and the Marathon/Second and Folsom projects were included in the existing scenario), and future conditions with the project in place.

Wind test data were combined with wind records to predict the wind speeds that would be exceeded 10% of the time at each test location. The predicted winds were then compared to the comfort and hazard criteria in the Planning Code, established in the Downtown Plan. (See Appendix G, page A-55 for a summary of the full wind analysis.) Throughout the following discussion, the wind speeds reported refer to the equivalent wind speeds that would be exceeded 10% of the time.²

Existing wind speeds are 5 mph to 8 mph at the 23 sidewalk locations tested. (See Appendix G, Figure G-1, page A-60, for a figure showing the locations of, and wind speeds at, the test points. Existing winds at all of these locations meet the 11 mph comfort criterion.

The project would cause wind speeds to increase at one of the 23 sidewalk test locations, to remain the same at 12 locations, and to decrease at 10 locations. Winds within sidewalk areas would meet the 11 mph comfort criterion for pedestrian areas. At the three measurement locations within sitting areas created by the project, winds would be below the 7 mph comfort criterion.

¹This section is based on a study entitled "Supplementary Wind Tunnel Analysis for the Proposed 299 Second Street Project," February 1986, prepared by Environmental Impact Planning Associates. A summary of the report is included in Appendix G, page A-55; the complete report is on file and available for public review at the Department of City Planning, Office of Environmental Review, 450 McAllister St., Sixth Floor.

²Equivalent windspeed is an hourly wind speed adjusted to incorporate the effects of gustiness or turbulence on pedestrians.

3. Skyplane Analysis

Figures 26 and 27, pages 83 and 84, show skyplane analysis for the sidewalk areas on the west side of Second Street and north side of Clementina Street opposite the site. The profile of the proposed project and the path of the sun across the sky are shown. While this method accurately quantifies the times of the day and year that a building will block sunlight, the distortion caused by using a fish-eye lens gives an inaccurate perception of the amount of sky blocked by buildings.

Figure 27 shows that morning sunlight at the corner of Clementina and Second Streets would be eliminated before 11 a.m. throughout the year. Afternoon sunlight would not be affected.

Figure 26 is the analysis for the location across Second Street from the project site. Sunlight reduction would not occur at any time of the year at this location.

SKY PLANE EXPOSURE FROM WEST SIDE OF SECOND STREET

FIGURE 26

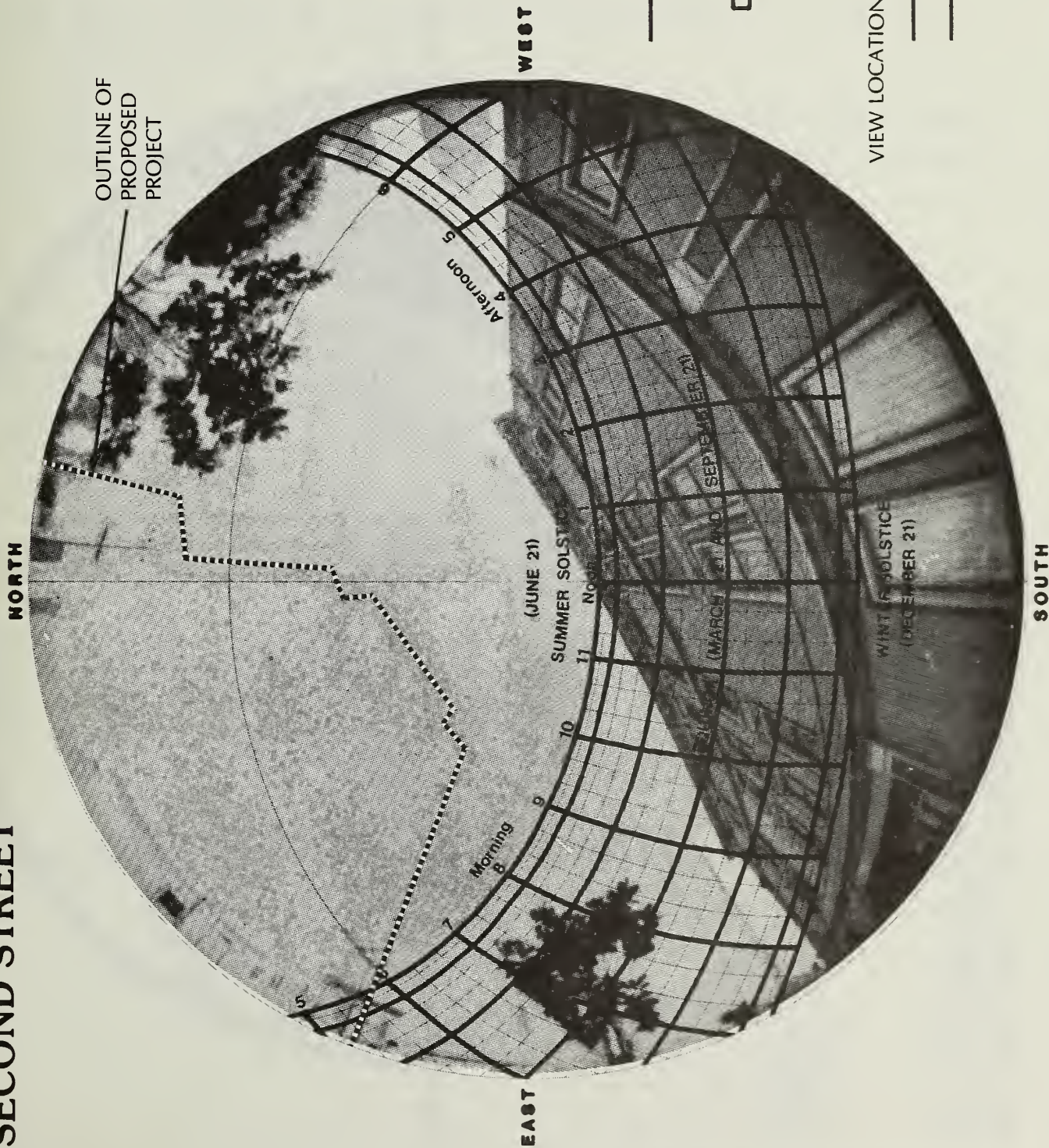
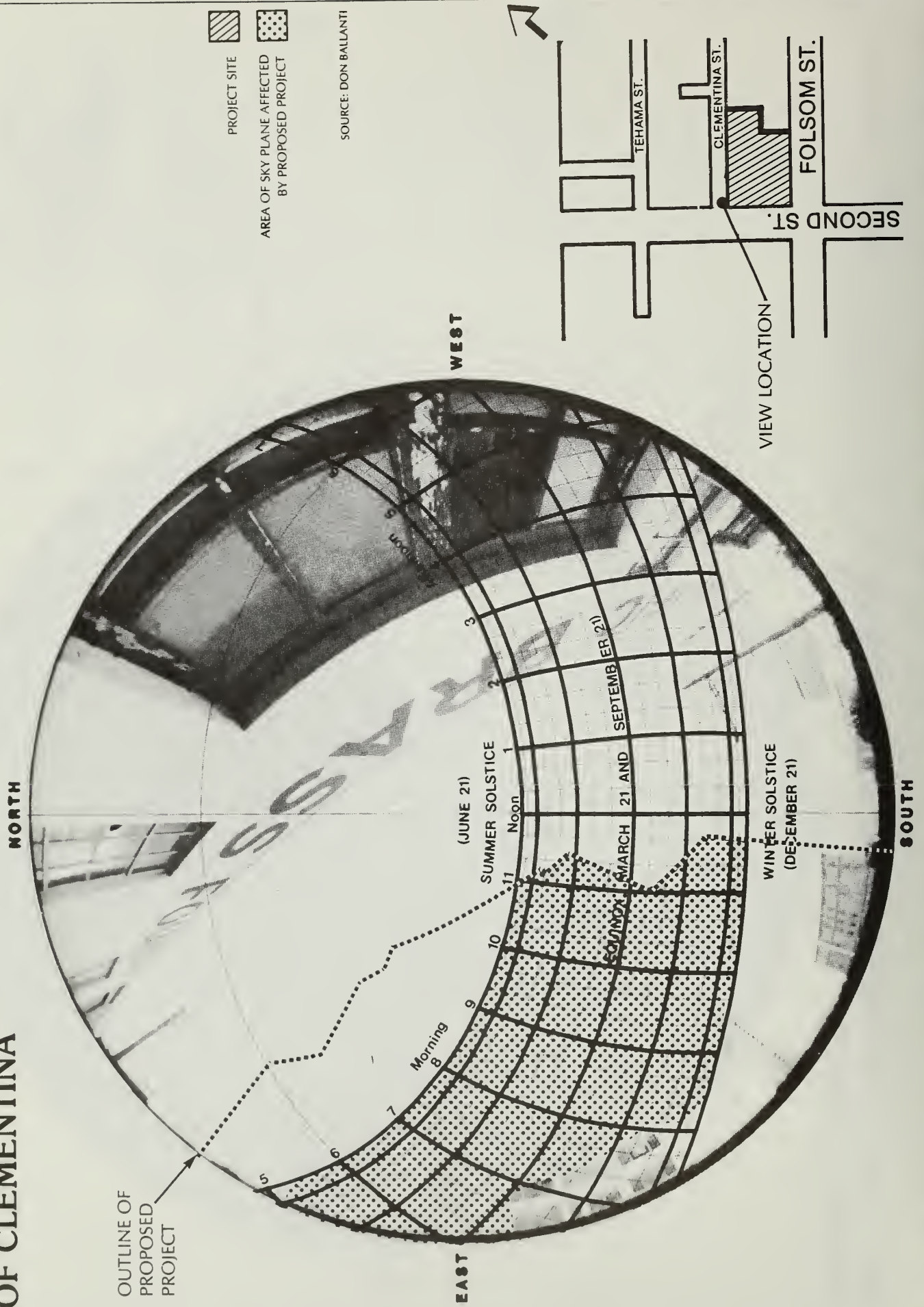


FIGURE 27

SKY PLANE EXPOSURE FROM NORTH SIDE OF CLEMENTINA



E. ARCHITECTURAL AND HISTORIC RESOURCES

The following buildings would be demolished as part of the proposed project:

- o 590 Folsom Street, formerly the Bothin Realty Building, Lot 27, rated "C" by Heritage,¹ a three-story concrete converted warehouse, 1921.
- o 299 Second Street, Lot 29, rated "C" by Heritage, a two-story warehouse, 1921.

Neither building is included in the Department of City Planning's list of architecturally and/or historically significant buildings.

Downtown development has resulted in the total or partial demolition of 37 rated buildings between 1979 and 1982. See Appendix H, page A-63 for a complete list of these buildings. None was located in the project vicinity.

Proposed cumulative development in the project area would result in the demolition of two warehouses, one parking garage, eight office buildings, and a diner (see Figure 12, page 31). The current predominance of low-rise warehouse buildings converted to office and retail uses would be replaced with high-rise buildings.

¹A "C" (Contextual Importance) rating indicates that a building is distinguished by its scale, materials, compositional treatment, cornice and other features as noted on pages 12 and 13 of Splendid Survivors, Charles Hall Page & Associates, Inc. for Foundation for San Francisco Architectural Heritage, California Living Books, 1979.

F. TRANSPORTATION

TRAVEL DEMAND ANALYSIS

Project Travel Demand

Based on City guidelines and Caltrans trip generation research, the project travel has been calculated in Table 3, page 87.^{1,2} The project would generate a net increase of about 6,185 person trips daily: 630 during the p.m. peak hour and 1,075 during the peak two-hour period. A total of 514 outbound trips would occur during the peak hour and 851 trips during the peak two-hour period. The geographical and modal distribution of project travel (Table 4, page 88) has been based upon projected modal splits for the year 2000 contained in the EIR for the Downtown Plan (EE81.3).³

Modal assignments have been made on the basis of future modal splits for the year 2000 contained in the EIR for The Downtown Plan (EE81.3). The future modal splits have been applied to the project travel for the purpose of comparing project travel with future travel demand on the transportation system serving San Francisco. The modal splits used were derived from aggregate data for the C-3 District, the zoning district that contains the project site, and thus represent an average condition. The actual modal split for travel from the project may vary from the C-3 District average. However, because the travel demand forecasts used to derive the average modal split data include the travel from the project, application of the average modal split data to project travel appears to be sufficiently accurate for purposes of comparison.

Cumulative Travel Demand

Analysis of the transportation impacts of cumulative development in San Francisco EIRs has been the subject of considerable public discussion. To date, cumulative analysis has been conducted on the basis of based on a list of proposed development in the greater downtown area (see Appendix C, page A-32, for the March 10, 1984 list of these projects). The Downtown Plan EIR method is presents a refinement of the transportation analysis existing process that uses in which projections of employment growth, independent of a list of proposed projects, are used to project future travel.⁴

TABLE 3
NET NEW PROJECT PERSON TRIP GENERATION^{1,2,3}

Land Use	Daily Trip Rate	Daily Trips	Peak-Period Trips (1-hr/2-hr)	
			Total	Outbound
3,630 gross sq.ft. restaurant area	130/1,000 ²	472	38/76	16/32
10,000 gross sq.ft. retail area	150/1,000 ^{1,2}	1,500	150/300	78/156
232,760 gross sq. ft. office area	18.1/1,000 ³	4,213	442/698	420/663
NET TOTALS			630/1074	514/851
472 daily restaurant trips	=	19 work trips	+	453 non-work trips
1,500 daily retail trips	=	60 work trips	+	1,440 non-work trips
4,213 daily office trips	=	1,685 work trips	+	2,528 non-work trips
NET TOTALS			1,764 work trips	4,421 non-work trips

¹Institute of Transportation Engineers, Trip Generation, 1979, not paginated.

²Caltrans, Eleventh Progress Report on Trip Ends Generation, July 1976, pages 167, 168, 171 and 174.

³Department of City Planning, Guidelines for Environmental Review: Transportation Impacts, November 1984.

TABLE 4
DISTRIBUTION OF NET NEW PROJECT PERSON TRIPS
OUTBOUND DURING PM PEAK PERIOD

Location and Mode	Peak-Period Person Trips (1-hr/2-hr)		
	Work	Non-Work	Total ¹
San Francisco			
Auto	63/101	3/5	66/106
Muni			
NE	10/25	7/12	17/37
NW	38/60	1/2	39/62
SW	33/65	2/3	35/69
SE	7/15	2/3	9/18
BART	11/20	1/3	12/22
Walk	17/34	81/155	98/189
Other	3/7	--/1	3/8
	182/326	97/185	279/511
East Bay			
Auto	34/39	2/4	36/43
BART	65/98	5/9	70/107
AC	23/37	---	23/37
Other	1/1	---	1/1
	122/176	7/12	129/189
Peninsula			
Auto	29/43	1/2	29/44
BART	13/15	1/2	14/16
Samtrans	7/13	---	7/13
SP	11/11	2/3	12/15
Other	1/5	---	1/5
	61/88	3/6	64/94
North Bay			
Auto	14/16	1/3	15/19
GGT Bus	20/30	1/1	21/31
GGT Ferry	4/4	---	4/4
Other	3/4	---	3/4
	41/54	2/4	43/58
	406/643	109/208	514/851

Source: Department of City Planning, Office of Environmental Review (OER),
Downtown Plan, EIR EE81.3, certified October 18, 1984, on file at OER.

¹ Numbers may not total precisely because of rounding.

As discussed in Appendix J of the Downtown Plan EIR, transit service improvements have been assumed to be implemented by the year 2000. The service improvements assumed to occur correspond to the vehicle acquisition portions of the 5-Year Plans for Muni, AC Transit, SamTrans, CalTrain, and Golden Gate transit. In BART, both the vehicle acquisition program and the trackage improvements (Daly City tail track) were assumed to occur. These planned improvements would allow system capacities to keep pace with demand increases over time. The Downtown Plan EIR transportation analysis also assumes that regional auto use will continue to change over time in response to increasing levels of congestion on the bridges and freeways serving the City. The analysis projects a shift from single-occupant auto use (drive alone) for commuting to ridesharing (carpool, vanpool) and to transit use. The assumptions of continuing shift from auto to transit and ridesharing, most apparent in the 2000 modal splits, are made on the basis of long-term trends in transit use in the San Francisco commute corridors. Census data show that in the period 1970 to 1980, transit use for commuting increased. Similarly, Bay Bridge data show that ridesharing has been increasing over the last seven years. Thus, the shift to transit and ridesharing is well-established in San Francisco commute corridors.

The travel data presented in the Downtown Plan EIR transportation sections (and in this report) are projections of total demand on the transportation system serving San Francisco. The projections comprised of three components of travel demand. Two of the components were developed through an intricate travel modeling process for the C-3 District of San Francisco. These first two components of travel demand are C-3 District work (employee journey-to-work) travel and C-3 District non-work (all other) travel. The third component is non-C-3-District travel, which was forecast through an analysis of regional trends adjusted for the effect of development in the C-3 District. Non-C-3 travel is defined as travel that has neither an origin nor a destination in the C-3 District. Thus, non-C-3 travel includes travel to and from other parts of downtown and trips through San Francisco from other parts of the region. Employment projections are not specifically used in the non-C-3 travel analysis.

Although the C-3 District transportation modelling process used analytical techniques common to travel forecasting, several portions of the process are unique to the C-3 District. This uniqueness is the result of the development of two major data bases -- an inventory of existing land uses in the district and surveys of employees and employers in the district. The data developed from the surveys and the inventory have been used as the

basis for forecasts of development and employment growth in the C-3 District. Sections IV.B., Land Use and Real Estate Development; IV.C., Business and Employment; IV.D., Residence Patterns and Housing; and Appendices G, Land Use and Real Estate Analysis; H, Business and Employment Analysis; and I, Theoretical Discussion of Housing Market Effects/Methodology for Forecasting Residence Patterns, of the Downtown Plan EIR, which contain detailed information about methods used to project future employment in the C-3 District, are incorporated by reference into this report and summarized below and in the Land Use and the Residence Patterns and Housing sections of this EIR.

The cumulative analyses for forecasting future land use, employment, and residence patterns are described in the Downtown Plan EIR. Appendix sections therein describe the methodology, identify the factors considered, and identify the types and sources of data used. A concise description of the major components of the process of developing employment and land use development forecasts is presented in the flow charts in Figure H.1 and Figure G.1. The factors considered in forecasting residence patterns are identified in the diagram in Figure I.1.

The Downtown Plan EIR approach for forecasting future land use, employment, and residence patterns is based on a conceptual framework of the process of urban economic development. The analytical procedures incorporate a variety of types and sources of data and information concerning past, current, and likely future conditions regarding economic, real estate, demographic, and public-policy factors.

The employment projections in the Downtown Plan EIR for the year 2000 exceed the employment projected using the current list-based cumulative analysis, the list cannot take into account projects not yet proposed. The employment forecasts have been used as the basis for the travel demand modeling process. As described above, the C-3 District travel comprised two of the three components of total travel. Because of the use of the employment projections in the travel demand modeling process, the transportation forecasts for the year 2000 are independent of lists of cumulative development.

Through a complex calibration and validation process of comparing projections of travel demand modeled on the basis of the survey of C-3 District employees to actual travel from measurements made by state, city and regional agencies, work and non-work travel

demand from the C-3 District was modeled for the years 1984, 1990 and 2000. The modeling process comprises the following steps:

- o Trip generation rates (empirical measures of total travel to and from a specific land use) were applied to employment forecasts by business activity (i.e., different rates were used for various land uses).
- o The total travel from the C-3 District was distributed to seven Bay Area zones on the basis of projections of future employee residence patterns and origin-destination patterns for non-work travel.
- o Trips to each of the seven regional zones were assigned to travel modes on the basis of modal splits (distribution of travel over the transportation modes, auto, transit, etc.) developed from the C-3 District surveys.

At this stage of the process, the model forecasts total travel from the C-3 District. To complete the process and to allow analysis of the effect of travel demand from C-3 District development on the transportation network, the non-C-3 travel demand was analyzed. The total travel demand was calculated by summing C-3 District work and non-work travel and non-C-3 travel at sub-regional measuring points (called screenlines) located at or just beyond the San Francisco county line (except for Muni and BART westbay service which were measured inside San Francisco, outside the downtown). The total travel demand was then compared to available service (capacity) at the screenlines and operating conditions (demand-to-capacity ratios) were analyzed assuming planned improvements. The results of those analyses are summarized later in this section.

For future years, the C-3 travel modeling process was modified to incorporate changes in travel patterns (modal split changes, different travel times), employee residence patterns and changes in land use patterns. The process incorporates the dynamic aspects of changing Bay Area travel patterns, rather than assuming a fixed, unchanging condition over time. An example of past changes in travel patterns can be seen in the amount of carpooling activity on the Bay Bridge. In 1977, peak average vehicle occupancy westbound on the bridge was 1.7 persons per vehicle. By 1983, in response to increasing congestion and increased travel and parking costs, peak average vehicle occupancy westbound increased to 2.1 persons per vehicle.⁵

The non-C-3 travel demand was forecast through the use of growth factors developed on the basis of historic trends in regional and sub-regional travel.⁶ Historic growth rates

(factors) have been used to project increases only for non-C-3 District travel at the regional screenlines. No other use of historic growth rates has been made in the transportation analysis. Because of the individual and unique nature of each of the transportation screenlines, each growth rate is based on data for that location. Thus, the growth rates for freeways project growth in auto trips, while the growth rates for transit project growth in ridership.

Each of the historic growth rates inherently contains information about regional growth in travel patterns and thus incorporates not only growth from other parts of San Francisco, but from elsewhere in the region. As an example, the historic growth factor for trips southbound on US 101 includes travel that crosses the Bay Bridge or the Golden Gate Bridge as well as travel from San Francisco. However, the growth is projected as growth in auto travel and cannot be related directly to growth in employment in San Francisco.

The other process used to forecast cumulative transportation impacts starts with a list of cumulative office and retail development (net new office and retail space) proposed, approved or under construction in the greater downtown area. From that list, through the use of static employment densities for office and retail uses and established trip generation rates, forecasts of travel demand are made. The forecast travel is assigned to modes on the basis of modal split factors (which are assumed not to change over time). The Transportation Guidelines for Environmental Impact Review: Transportation Impacts (Department of City Planning, September 1983, hereinafter Transportation "Guidelines") describe the process and the data used to calculate transportation impacts from the list-based development.

The current list, shown in Appendix E, has about 19 million gross sq.ft of net new office space and about 0.9 million gross sq.ft. of net new retail space. On the basis of the Transportation Guidelines analysis, the list-based development would generate approximately 80,000 p.m. peak-period person trip-ends, of which about 49,000 would occur in the p.m. peak hour. Table 5, page 93 shows a comparison of the projections of travel demand from the list-based analysis and from the Downtown Plan EIR for the year 2000. While the list contains development both inside and outside the C-3 District, the Downtown Plan EIR makes specific projections only for C-3 District development and the travel components shown in Table 5 are for the C-3 District only; therefore, for purposes of comparison, travel from the C-3 component of the list (about 13 million gsf of net new

TABLE 5: COMPARISON OF LIST METHOD AND DOWNTOWN PLAN FORECAST METHOD --
P.M. PEAK-HOUR CUMULATIVE TRAVEL DEMAND FOR THE C-3 DISTRICT

Mode of Travel	3/22/85 List ¹	Downtown Plan (1984-2000) ²	Alternative 1 (1984-2000) ²	Alternative 2 (1984-2000) ²	Alternative 3 (1984-2000) ²	Alternative 4 (1984-2000) ²	Alternative 5 (1984-2000) ²
Work Person Trip-ends	24,199	41,400	47,600	46,200	44,400	39,100	39,700
Other Person Trip-ends	6,955	12,100	14,700	14,200	13,400	11,800	11,800
Total Person Trip-ends	31,154	53,500	62,500	60,500	57,900	51,000	51,600
Muni Northeast	900	1,600	1,700	1,600	1,600	1,700	1,700
Northwest	4,000	1,800	2,000	1,900	1,800	1,800	1,800
Southwest	3,200	1,100	1,100	1,000	900	800	800
Southeast	700	1,100	1,000	1,000	1,000	600	700
BART Transbay	4,600	11,800	13,300	13,100	12,700	11,300	11,300
Westbay	1,800	2,400	2,800	2,700	2,600	2,300	2,300
AC Transit	2,000	200	600	500	300	-100	-100
GGT Bus	1,100	3,200	3,700	3,600	3,500	2,700	3,100
Ferry	300	800	800	800	800	800	800
SamTrans	300	1,200	1,300	1,300	1,200	1,000	1,100
SPRR/CalTrain	500	1,800	2,000	1,900	1,800	1,700	1,700
Regional Auto ³							
Golden Gate Bridge	380	410	630	590	540	390	370
Bay Bridge	1,030	1,250	1,550	1,540	1,510	1,060	1,110
Bayshore Freeway (U.S. 101)	480	470	650	620	590	400	400
Interstate 280	480	470	650	620	590	400	400

¹ Travel from only those projects on the list that are located inside the C-3 District. The list also contains development located in the greater downtown area outside the C-3 District; travel from those projects has been included in the list-based travel shown in the remainder of this section.

² Inbound and outbound travel resulting from activity in the C-3 District, from Table IV.E.1, page IV.E.25 of the Downtown Plan EIR. (In some instances, these estimates include non-C-3 travel which cannot be separately identified.) The analysis used in the Downtown Plan EIR also assumes growth in travel outside the C-3 District, from other City locations and from regional locations, that is not shown above; it is discussed in the remainder of this section.

³ Vehicle trip-ends; calculation made on the basis of 2.7 persons per carpool and 12 persons per vanpool. Person trip-ends on transit cannot be added to vehicle trip-ends to obtain total person trip-ends because of the varying numbers of persons per vehicle.

Source: Environmental Science Associates, Inc. and EIP Associates

office space and 0.4 million gsf of retail space) has been analyzed for comparison with the projections from the Downtown Plan EIR for Alternatives 1 to 5 and the Downtown Plan.

As shown in Table 5, travel demand from the Alternatives in the Downtown Plan EIR ranges from Alternative 1 (about 17% higher than the Downtown Plan) to Alternative 4 (about 5% lower than the Plan). Although there is a range, the spread is within the level of accuracy of the transportation analysis and thus, statistically, the transportation impacts of the Alternatives are equivalent to those of the Downtown Plan. Several anomalies are apparent in the data shown in Table 5. The major anomaly is that, while the C-3 component of the list would generate about half as much travel as do the Downtown Plan and the five Alternatives, the list-based analysis yields travel demands within San Francisco (inside and outside the C-3-District) that exceed those generated by the Downtown Plan and the Alternatives. An explanation of this major anomaly is presented in the following paragraphs.

The difference in total travel results in part from the different time frames of the list and the Downtown Plan EIR. The Downtown Plan EIR established 1984 as the baseline year and 1990 and 2000 as target study years. Estimates of growth were made on the basis of projections for each of the target years for the range of alternatives. In contrast, the projects included on the Cumulative List span a period from 1984 to sometime in the early or mid-1990's, when completion of all projects on the list or a similar amount of square footage would be expected.⁷ This is one of the major reasons why results of impact analyses using these two forecasting methods are not directly comparable.

The variations in travel by trip purpose (work, other) and by travel mode (as shown in Table 5) between the list-based method and the Downtown Plan EIR method can be explained by differences in the methodologies and data bases used to forecast the travel demand. The list-based analysis employs single-use trip generation data to estimate total travel through the process of adding together the trip generation estimates from all the individual buildings on the list. These single-use trip generation rates do not incorporate any discounting factors to account for trips going from one building to another within the Downtown. Studies for the Downtown Plan EIR have confirmed that there is considerable

travel between land uses in the downtown area. Thus, the list-based analysis adds each trip as if it were a new trip in or out of the downtown and overestimates the total number of peak-hour trips.

The Downtown Plan EIR travel demand model has refined the trip generation process by incorporating discounting factors that adjust the trip generation rates to give travel to and from the C-3 District as a whole; it does not include trips internal to the C-3 District. Although the Downtown Plan EIR process predicts proportionately more work travel than does the list-based analysis, observations show that the Downtown Plan EIR forecasts more closely resemble actual travel demand that would result from downtown development.

The differences in distribution of travel among modes (shown in Table 5) are the products of refinements in the regional distribution and modal split analyses in the Downtown Plan EIR process. The list-based analysis assumes a static (unchanging over time) regional distribution and static modal splits. The Downtown Plan EIR analysis has incorporated changes in both the regional trip distribution (reflecting projected availability of housing) and the modal splits (reflecting projected availability of roadway and transit capacity in the future).

The list-based analysis shows more San Francisco travel (as shown by larger Muni numbers for the list-based analysis in Table 5) than does the Downtown Plan EIR analysis, because the Downtown Plan EIR analysis projects a declining availability of housing in the City. Thus, as the downtown work force increases, the percentage of workers living in San Francisco would decrease. The list-based analysis assumes that the percentage of workers living in San Francisco would remain constant over time and thus overestimates the number of future employees living in the City and underestimates the number of regional commuters.

Other differences in travel among the modes, particularly regional auto and AC Transit, are the result of the refined modal split process used in the Downtown Plan EIR. As the list-based analysis assumes that modal split remains constant over time, the list-based analysis is insensitive to the abilities of transit agencies and regional roadway systems to serve future demand. The Downtown Plan EIR analysis has assumed that the modal split would change over time in response to the increasing levels of congestion at the regional

screenlines (described in the Downtown Plan EIR). Thus, because the Bay Bridge is at or near capacity in the p.m. peak hour eastbound, the Downtown Plan EIR modal split projects a proportionately lower increase in auto demand to the East Bay than does the list-based analysis. Similarly, for AC Transit the Downtown Plan EIR recognizes that current regional transit policy dictates no increases in AC Transit transbay service and thus, the ability of AC Transit to carry additional riders transbay will be restricted in the future. Use of this changing modal split is a refinement that allows the travel model to more accurately forecast travel demand and thus, the Downtown Plan EIR results represent a more accurate level of projection than has been possible using methods and data available to date.

Various other factors cause differences in the travel demand projections between the two approaches. The Downtown Plan EIR and the Consultant's Report on Downtown Growth Management Alternatives (Environmental Science Associates, 1983) contain extensive discussions of the analyses and data used to forecast employment, land use (see Sections cited above) and transportation demand (see Section IV.E and Appendix J of those reports).

TRANSIT

- Table 6 (page 97) shows the transit demands expected from the projects on the list and under the forecast methodology have compared both to projected 1990 capacity conditions and to year 2000 capacity conditions. The primary reason for providing both 1990 and 2000 analyses is that there are no available projections of transit system capacities for the mid-1990s, when buildout and absorption of the list projects are expected. Thus, the data in the "Cumulative List + 1984" columns are intended to describe the foreseeable range of transit impacts under the list-based analysis.
- The data derived from year 2000 capacity figures is considered to be a more realistic representation of future impacts than that derived from 1990 capacity figures for several reasons. First, the capacity projections for the year 2000 are conservative ones; transit agency plans for capacity increases that were determined to be somewhat more speculative were not included in assumed capacities. Second, the list-based method utilizes single-use trip generation rates, thereby adding each trip as if it were a new trip in or out of the downtown. Consequently, the total number of peak-hour trips are overestimated under this method. Thus, while the column which presents the impacts of

- the list-based transit demand in relation to year 2000 capacity projections may slightly understate actual impacts, that assessment is considered to be more accurate than the impact assessment using 1990 capacity projections due to the fact that capacity projections are conservative and demand projections are overstated.
- In addition, it should be noted that the results of the transit impact analyses using the 1990 and year 2000 capacity projection assumptions do not differ significantly. Assuming year 2000 capacities, only two Muni corridors would not meet "acceptable" loadings. This is also true assuming 1990 capacities, with the exception that BART transbay would slightly exceed BART's "acceptable" loadings of 1.5 passengers per seat.

The transit agencies serving downtown San Francisco carry approximately 60% of the peak-period employee work travel, as well as about 20% of the peak-period other travel. P.M. peak-hour and peak-period loadings on the local and regional transit routes were found to be near capacity for some of the routes in 1984 (see Table 6, page 97). The values shown in Table 6 are sums over the peak-hour and the two-hour peak-period. Within the peak-hour, there would be periods of time when the loading ratios would be higher than those shown for the hour (peak-of-the-peak conditions). Individual transit vehicle loadings vary on a day-to-day basis because of fluctuations in ridership (demand) and because of variations in operating conditions caused by traffic congestion, equipment availability, and/or system breakdowns. Photographic examples of p.m. peak-hour loadings on Muni vehicles are shown in Appendix B, Figures B-1 to B-2).

The 1981/82 transit ridership and loading data used in the Downtown Plan EIR analysis are summations of actual counts of individual transit lines for that period in time. Calculations are made on the basis of observed operating conditions, as opposed to

TABLE 6: OUTBOUND REGIONAL TRANSIT DEMAND AND LEVEL OF SERVICE¹

Transit Agency	1984			1984+CUMULATIVE LIST						2000						1984 + CUMULATIVE LIST					
	Riders	(Downtown Plan EIR)		(Using 1950 Capacity)						(Downtown Plan EIR)						(Using 2000 Capacity)					
		P/S ²	LOS ³	Demand	P/S	LOS	Demand	P/S	LOS	Demand	P/S	LOS	Demand	P/S	LOS	Rounded Demand	P/S	LOS	Percent ⁴		
P.M. Peak Hour																					
Muni																					
Northeast	7,100	1.16	D	7,900	1.13	D	8,600	1.23	D	8,800	1.05	D	8,800	1.03	D	8,600	1.03	D	0.6		
Northwest	8,200	1.26	E	9,200	1.26	E	13,500	1.85	F	10,100	1.25	D	13,500	1.67	F	13,500	1.67	F	0.9		
Southwest	13,500	1.45	E	15,100	1.44	E	17,900	1.71	F	16,600	1.42	E	17,900	1.53	F	17,900	1.53	F	0.6		
Southeast	5,300	1.06	D	6,200	1.03	D	6,500	1.08	D	7,400	1.01	D	6,500	0.89	C	6,500	0.89	C	0.4		
BART																					
Transbay	16,100	1.53	F	20,500	1.42	E	22,200	1.54	F	27,900	1.42	E	22,200	1.13	D	22,200	1.13	D	0.9		
Westbay	7,700	1.10	D	8,800	1.26	D	10,100	1.45	E	10,100	1.06	D	10,100	1.06	D	10,100	1.06	D	0.8		
AC Transit	9,100	0.94	C	10,500	1.08	D	11,800	1.21	D	10,500	1.08	D	11,800	1.21	D	11,800	1.21	D	0.6		
GGT Bus	5,300	1.00	C	6,600	0.86	C	6,800	0.89	C	8,500	0.91	C	6,800	0.73	B	6,800	0.73	B	0.9		
GGT Ferry	800	0.57	B	1,100	0.28	A	1,200	0.31	A	1,500	0.38	A	1,200	0.30	A	1,200	0.30	A	0.9		
Tiburon Ferry	200	0.40	A	200	0.40	A	200	0.40	A	300	0.60	B	--	200	0.40	A	200	0.40	A	--	
SamTrans	1,900	1.12	D	2,400	1.20	D	2,400	1.20	D	3,100	1.19	D	2,400	0.92	C	2,400	0.92	C	1.0		
CalTrain	3,100	0.61	B	4,000	0.65	B	3,800	0.62	B	4,900	0.79	C	3,800	0.61	B	3,800	0.61	B	1.0		
P.M. Peak Period																					
Muni																					
Northeast	12,600	1.06	D	13,900	1.01	D	15,300	1.11	D	15,500	0.95	C	15,300	0.94	C	15,300	0.94	C	0.7		
Northwest	13,100	1.13	D	14,100	1.07	D	21,400	1.62	F	15,300	1.05	D	21,400	1.47	E	21,400	1.47	E	0.9		
Southwest	23,300	1.31	E	26,000	1.29	E	30,300	1.50	E	28,700	1.29	E	30,300	1.36	E	30,300	1.36	E	0.7		
Southeast	9,100	1.00	C	10,300	0.95	C	11,100	1.02	D	12,100	0.88	C	11,100	0.81	C	11,100	0.81	C	0.5		
BART																					
Eastbay	25,800	1.54	F	32,600	1.42	E	35,400	1.54	F	44,100	1.40	E	35,400	1.12	D	35,400	1.12	D	0.9		
Westbay	11,300	0.80	C	12,800	0.91	C	15,000	1.07	D	14,600	0.77	C	15,000	0.79	C	15,000	0.79	C	0.7		
AC Transit	14,000	0.95	C	17,000	1.16	D	18,200	1.24	D	17,000	1.16	D	18,200	1.24	D	18,200	1.24	D	0.6		
GGT Bus	7,600	0.90	C	9,500	0.77	C	10,000	0.81	C	12,200	0.81	C	10,000	0.66	B	10,000	0.66	B	0.9		
GGT Ferry	1,000	0.56	B	1,400	0.27	A	1,700	0.33	A	1,700	0.33	A	1,700	0.33	A	1,700	0.33	A	0.8		
Tiburon Ferry	300	0.60	B	400	0.80	C	400	0.90	C	500	1.00	C	--	400	0.80	C	400	0.80	C	--	
SamTrans	2,900	1.12	D	3,400	1.13	D	3,600	1.20	D	4,500	1.15	D	3,600	0.92	C	3,600	0.92	C	1.1		
CalTrain (SPRR)	4,500	0.68	B	5,200	0.64	B	5,600	0.69	B	6,200	0.77	C	5,600	0.70	B	5,600	0.70	B	0.8		

¹The 1984, 1990 and 2000 columns and 1990 and 2000 capacities are derived from the Downtown Plan EIR, summarized in Table IV.E.2, page IV.E.29 of that EIR.

²Passengers per seat is the ratio of total demand to seated capacity.

³Level of service is scale ranging from A to F that relates P/S ratios to passenger loading conditions on transit vehicles (see Table C-1, Appendix C).

⁴The percent of demand generated by the project.

Source: Environmental Science Associates, Inc. and EIP Associates

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scheduled operations. Muni supplied the data for the Downtown Plan EIR analysis from its ongoing program of ridership checks. (The data supplied and collected for each transit agency are in the supporting documentation for the Downtown Plan EIR, on file with the Office of Environmental Review, 450 McAllister St., Fifth Floor, San Francisco, CA.) Muni was involved in the process of verifying the transportation analysis for the Downtown Plan EIR and as a result of that process, approved of the use of Muni data and the projections derived from that data.

The Level of Service concept, similar to that developed for highway operations, has been applied to both bus transit and rail transit. Passengers per seat (i.e., total passengers divided by the number of seats) has been used as the measure of effectiveness to define the various level of service ranges. Table B-3, Appendix B, shows the relationship between Level of Service and passengers-per-seat (p/s) ratios for bus transit systems.

During the p.m. peak hour in 1984, all of the transit agencies were found to be operating in Level of Service D or better, with the exception of BART Transbay where conditions were found to be at Level of Service F, and Muni in the Northwest and Southwest corridors, where operations were found to be in Level E. Although BART is a rail transit service, its cars have a unique seating configuration. The ratio of total capacity to seated capacity for a BART car (about 1.5) is equivalent to the ratio for bus transit; thus the bus transit Level of Service scale is applicable to BART. Level of Service F ("crush" or "jammed" loadings) on BART is in the range of 1.5 to 1.8 passengers per seat. Because BART operates on a centrally controlled system, the "crush" loadings would not increase passenger loading times (which causes deterioration of service) as would be the case on a bus transit system rather, the effects of "crush" loadings on BART would be reflected in increased passenger discomfort.

The rail transit Level of Service scale is based on typical lightrail transit systems for which total capacity is about 2.0 to 2.2 times seated capacity. The rail transit Level of Service scale would be applicable to Muni Metro, which provides about 50% of the seated capacity to the Southwest corridor. Because Metro vehicles can accommodate higher loadings (a ratio of 2.0 passengers per seat) than buses or trolleys (a 1.5 ratio), the Level of Service would be somewhat better than shown in Table 6. An exact estimate of Metro loadings is not possible without analysis of the Metro service separate from the remainder

of Muni service to the Southwest; such analysis would be beyond the ability of the travel demand analysis to predict accurately over time, as discussed in the following paragraphs.

With regard to the Muni data presented in Table 6 the Muni routes have been aggregated on a corridor basis and thus include two-directional travel on some routes that serve the Northeast and Southeast corridors. The Muni numbers cannot be added over the corridors to get a total for the system. Neither can capacity be shifted from one corridor to another. For instance, capacity in the Northeast corridor depends, in large part, on capacity that serves the Southeast portion of the City. The 15, 19, 30X, 30AX, 30BX, 32, and 47 lines pass through the downtown in two directions. Service on the above lines is interdependent. Thus, increases or decreases in capacity on one of the above lines directly affects service in the opposite direction. Service to the Northeast and Northwest corridors is also interconnected, as lines serving the Northwest must pass through the Northeast corridor and, thus, serve both areas. Muni ridership and capacity have been apportioned between both areas.

Passengers-per-seat ratios are only one measure of adequacy of service. The constraints of operating on heavily used streets in and around the downtown cause transit-vehicle bunching, loss of running time and missed schedules, all of which reduce service, reliability, and ultimately, capacity. In some respects, this would not be evident from simple quantitative analysis. In addition to these inefficiencies inherent within the transportation system, there are other factors which would affect overall transit capacities. These include variability in daily and seasonal ridership for which an absolute capacity must be available, as well as transit riders who remain uncouned because their transit trips both start and end the screenlines used in this analysis. Daily fluctuations in fleet availability also affect system capacity.

Further, policy considerations dictate minimum operating conditions on certain lines; minimum headways that have been established to maintain transit access to areas served by those lines are not warranted on the basis of ridership alone. When averaged together, the ridership data from these lines may slightly distort overall ridership conditions.

P.M. peak-period conditions on transit in 1984 are equivalent to or better than peak-hour conditions. In some cases, where demand remains at peak-hour levels during the two-hour period, the passengers-per-seat ratios in the two-hour period are higher than in the one-

hour period. This anomaly is the result of transit agencies' providing express (or additional) service during the peak hour, but not during the entire peak period. An example of this type of operation may be seen on BART, where three extra trains operate in transbay service in the peak hour but not in the rest of the peak period. Another factor involved is the distribution of demand (ridership) at uniformly high levels over the peak period.

Both transit demand and capacity have been assumed to increase during the period 1984 and 2000. The discussions of transit capacity increases for the agencies are based on the Five-Year Plans and Capital Improvement Plans of the various transit agencies; they appear in Appendix J of the Downtown Plan EIR, pages J.25-J.26. This material, which is discussed below and summarized in Table 6, is incorporated by reference. The future capacities were developed by applying percentage increases, expected in the future, to observed existing capacity. Thus, to the extent that the existing conditions contain inherent capacity reduction for missed runs, the future capacity projections have taken into account the inability of the transit systems to provide 100% of scheduled capacity. As noted above, the Muni analysis calculates capacity on the basis of all runs leaving the C-3 District in the p.m. peak. For all of the transit analyses, only peak-direction vehicles are counted.

Future transit demand and loadings for the Downtown Plan in the year 2000 and for 1984-plus-the-Cumulative-List are shown in Table 6 for both the peak hour and the peak period. The transit demand from the project would range between 0.1% and 0.4% of the total peak-hour travel demand on the individual transit carriers in the year 2000.

Peak-hour transit demand on Muni in the year 2000 would increase about 25% over 1984 levels in the Northeast, Northwest and Southwest corridors. Muni demand in the Southeast corridor would increase about 40% between 1984 and 2000. Peak-hour demand on the other agencies would increase between 30% and 70% between 1984 and 2000.

Peak-period increases in demand would be between 15% and 70% during the 1984 to 2000 period. Overall peak-period travel would be expected to increase about 30% between 1984 and 2000. Peak period demand generated by the project would range from 0.1 to 0.4% of the total peak period travel demand. Peak-hour and peak-period passenger loadings would be worse than in 1984, although most systems would operate in acceptable

conditions (Level of Service D or better). However, BART Transbay and Muni to the Southwest would be in Level of Service E during the peak hour and the peak period.

Although the data in Table 6, is calculated on the basis of projections for the Downtown Plan, similar conditions would be expected under the five Alternatives in the Downtown Plan EIR. As shown in Table 5, total transit demand under Alternative 1 would be about 12% higher than under the Downtown Plan while transit demand from Alternative 4 would be about 9% lower than the Plan. As noted previously, these differences would not be statistically significant. In terms of Level of Service, the Downtown Plan would be equivalent to the five Alternatives.

It is important to note that the Five-Year Plan improvements for the transit systems are designed both to provide for future demand increases, and to improve service levels from existing conditions. For new vehicle to expand system capacity rather than represent replacement on a one-to-one basis, operating revenues would similarly need to be increased. During the year 2000 peak hour, Muni service to the Southwest and BART service Transbay would exceed the desirable passengers per seat ratios of 1.25 and 1.50, respectively.⁸ Although the transit demand in the two corridors in excess of the desirable loadings would be able to be accommodated under crowded conditions and thus would not be excess demand; (that is, not beyond capacity), demand in excess of the desirable loadings would mean that additional transit service over that assumed to occur by 2000 would need to be provided to allow transit operations in the two corridors to meet the goals set by Muni and BART. To meet the goal of 1.25 passengers per seat in the peak hour, Muni would have to increase service by about 14% in the Southwest corridor over the amount of service assumed to occur in 2000. To meet the goal of 1.50 passengers per seat, BART would have to provide a transbay service increase of 14% over the amount of service assumed to occur by 2000.

If transit service were not increased beyond the amounts assumed to occur by the year 2000 in the Downtown Plan EIR, transit operations (in terms of passenger comfort) would be slightly better than 1984 conditions. Peak-hour and peak-period passengers-per-seat ratios would be lower than 1984 ratios even though service (in some corridors) has been assumed to increase as much as 80% between 1984 and 2000.

If the Downtown Plan's Goals regarding increased transit use were achieved, and the proposals in the Plan regarding transit service improvements were to be fully developed and in place, the impacts on transit agencies would be less than described above. If the Goals were achieved, transit agencies would experience greater levels of demand than under this analysis but overall passenger loadings would be lower (and within desirable levels) because of increased transit service availability that would come about if the proposals stated in the Plan are developed.

Shown in Table 6 is an independent analysis of the conditions that would result from adding travel from the Cumulative List to the 1984 base data, as is specified in the Transportation Guidelines. As noted above, the estimates calculated by adding the travel from the cumulative list to the 1984 base data as note specifically comparable to those from the Downtown Plan EIR method. The project travel would represent about 0.2% of the total travel on transit in the 1984-plus-the-Cumulative-List condition. As noted above, the List-based analysis overestimates the component of travel from San Francisco, as is shown in Table 6 by higher P/S ratios for Muni in the Northwest and Southwest corridors and lower P/S ratios for BART transbay, SamTrans, and CalTrain than under the Downtown Plan EIR method. Under the 1984-plus-the-Cumulative-List conditions, Muni would not meet its service goals in the Northwest and Southwest corridors; this would require additional service increases of 27% and 20%, respectively, to meet Muni's goal of 1.25 passengers per seat in the peak hour. The other transit agencies would meet their service goals under these conditions.

Transit Costs

- On April 27, 1981, the San Francisco Board of Supervisors approved Ordinance 224-81 establishing the Transit Impact Development Fee (TIDF) to support the additional operating costs and capital improvements for Muni transit services associated with new downtown commercial development. The ordinance established a one-time fee of up to \$5 per gross sq.ft. upon occupancy of new office space within the greater downtown area; the 299 Second Street project site is located within the fee assessment area. The TIDF ordinance has been in litigation almost since its inception. On January 4, 1985, the San Francisco Superior Court issued a final decision upholding the ordinance. On March 12, 1985, the plaintiffs, a group of downtown property owners, appealed. Money has been

- collected pursuant to the ordinance, and is being deposited in an escrow account, pending resolution of the litigation. Under the ordinance, the project would generate about \$1,163,800 in one-time fee revenues to Muni.⁹ The fee is intended to recover additional transit costs for the entire economic life of a building, and thus cannot be compared directly to the annual Muni deficit discussed above. The fees collected under the ordinance would, however, reduce the amount of General Fund revenue support necessary for existing and future Muni operations.

Cost increases due to increased patronage would be expected for Muni, SamTrans, BART and Golden Gate Transit. The City's general fund provides for a subsidy to the Municipal Railway's operating budget. The subsidy covers the difference between Muni's costs and the revenues that Muni receives from fares and from federal and state governments and represents the cost of Muni to the City. This subsidy amounted to about 10% of total

General Fund revenues in the 1984-85 budget; if this share were maintained, the proposed project would contribute approximately \$20,650 annually to Muni through increased net revenues to the General Fund after occupancy. The net marginal cost (or increase in the deficit for Muni operations) per peak-hour ride was \$0.50 in 1984. The proposed project would generate about 186 peak-period outbound trips which could generate an annual cost to Muni of approximately \$46,870.¹⁰ The extent to which this marginal cost increase cost would be met by the general fund allocation to Muni is not known. However, it appears that the increase in general fund allocations generated by the proposed project would offset a portion or all of the about \$46,870 peak-period marginal costs to Muni. State and federal funds to Muni are decreasing and the City is reviewing other options for increased revenues.

It is estimated that 520 daily trips on BART would be generated by the proposed project employees. The deficit per rider for BART is estimated at \$1.06. Using this rate, the proposed project would generate a deficit of about \$138,900.¹¹ However, additional property tax and sales tax revenues generated by the project for BART would reduce the deficit to \$108,600.

PEDESTRIAN MOVEMENTS

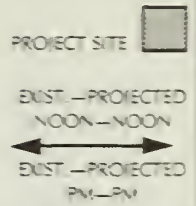
6. Pedestrian Flows

The project's primary entrance, would be along the Second Street frontage. The project would generate about 500 (net new) p.m. peak-hour pedestrian trips and about 745 (net new) pedestrian trips during the mid-day peak hour (within the 11:00 a.m. to 1:00 p.m. period).

Existing and projected pedestrian flow conditions have been identified for sidewalks and crosswalks adjacent to the project site (see Figure 28, page 105).¹² (For a definition of pedestrian flow regimes, see Appendix B, Table B-1, page A-23 and page A-24). Existing flows are "open" with the exception of "unimpeded" midday flows along the site's Folsom Street sidewalk. As shown in Figure 28 (page 105), pedestrian flows would degrade slightly to "unimpeded" along Second Street and the Folsom Street crosswalk during both the midday and p.m. peak hours. Other sidewalks and crosswalks would have increased pedestrian traffic but would remain "open" with the exception of midday flows on the Folsom Street sidewalk which would remain unimpeded.


EXISTING AND PROJECTED PEDESTRIAN FLOW

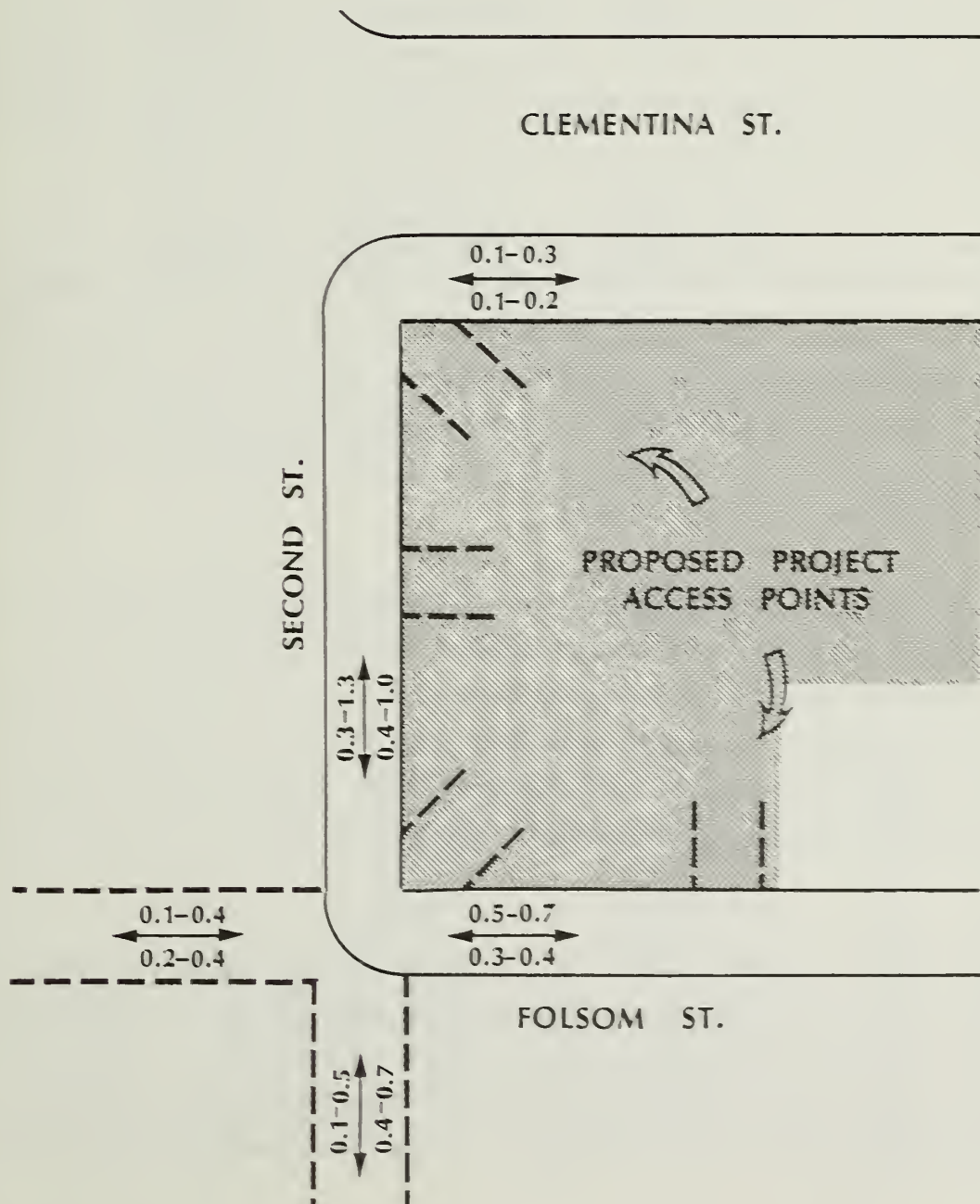
FIGURE 28



NOTE: FLOW IS IN PERSONS PER
MINUTE PER FOOT OF SIDE—
WALK OR CROSSWALK WIDTH

SOURCE: EIP CORPORATION

NOT TO SCALE 



TRAFFIC

The analysis of traffic impacts has been conducted on two levels: one level of analysis considered impacts at the regional screenlines, the second level of analysis considered impacts at intersections in and near the downtown.

Regional Freeway Analysis

Analysis of traffic conditions at the regional screenlines has been conducted for both the p.m. peak hour and the two-hour p.m. peak period. A.m. peak traffic conditions at regional screenlines have the effect of metering the amount of traffic that reaches the downtown from outside of the City. This analysis has considered p.m. peak conditions. P.m. conditions are usually most severe on freeways and streets within San Francisco, whereas a.m. peak conditions are most severe at locations outside the City.

Traffic demands at the regional screenlines in 1984 (see Table 7, page 107) during the p.m. peak hour were found to use between 90% and 100% of the available capacity on the freeways and bridges. Although the eastbound capacity of the Bay Bridge is calculated to be 9,000 vehicles per hour (vph), the 1984 peak-hour demand shown in Table 7 represents the effective eastbound capacity. The volume figures shown in Table 7 for 1984 for the one-hour and two-hour periods are averages of several days; thus, values for individual days may be different than the average.

Peak-hour freeway operating conditions in 1984 were found to be generally in Level of Service D to E conditions, which would indicate unstable flows in the 35 mph to 45 mph range. Table B-4, Appendix B, shows the Level of Service for freeway operations. Peak-of-the-peak conditions within the peak hour were found to be worse than the hourly conditions because of surges in traffic demand during the peak hour. Conditions during the peak-period at the screenlines would be similar to those experienced during the peak-hour.

As shown in Table 7, demand during the peak hour in the East Bay and Peninsula corridors would be expected to increase about 15% between 1984 and 2000. Peak-hour demand in the North Bay corridor would increase by about six percent between 1984 and 2000. The project travel demand, about 40 p.m. peak-hour and 60 peak-period outbound regional vehicle trip-ends would represent about 0.1% of the total demand in the year 2000. Both

TABLE 7
OUTBOUND REGIONAL AUTO DEMAND

Regional Auto Corridor	1984		DOWNTOWN PLAN (2000)		1984 + CUMULATIVE LIST	
	Capacity ¹	Demand ²	Demand	Project Percent	Demand	Project Percent
<u>P.M. Peak Hour</u>						
Bay Bridge (I-80)	9,000	8,540	9,790	0.1	9,480	0.2
Golden Gate Bridge (U.S. 101)	7,200	6,740	7,150	0.1	7,100	0.1
U.S. 101 (south of Harney Way)	8,000	7,390	8,400	0.1	7,800	0.1
I-280 (between Alemany Blvd. and San Jose Avenue)	8,000	7,610	8,650	0.1	8,020	0.1
<u>P.M. Peak Period</u>						
Bay Bridge (I-80)	18,000	17,880	19,330	0.1	18,460	0.1
Golden Gate Bridge (U.S. 101)	14,400	13,870	14,850	0.1	15,380	0.1
U.S. 101 (south of Harney Way)	16,000	14,200	16,530	0.1	14,870	0.1
I-280 (between Alemany Blvd. and San Jose Avenue)	16,000	13,620	15,890	0.1	17,290	0.1

¹ Although the capacity of the Bay Bridge is calculated to be 9,000 vehicles per hour (vph), the 1984 peak-hour demand shown above represents the effective capacity.

² The volumes for 1984 for the one-hour and two-hour periods are averages of several days and, thus, volumes for individual days may be different than the average.

Source: Environmental Science Associates, Inc.; Environmental Impact Planning Corp.

the East Bay and Peninsula corridors would have excess peak-hour demand that would not be met during the peak period.¹³ The North Bay corridor would have excess demand in the peak period. Excess auto demand would result in either a spreading of the demand into the hours adjacent to the peak period or in increased transit and ridesharing use should additional transit service (beyond that assumed to occur by the year 2000) or ridesharing incentives be provided.

Operating conditions at the regional screenlines would be at or near capacity in Level of Service E. Traffic flow conditions would be expected to be very unstable and could experience temporary flow interruptions throughout the peak period. Peak-of-the-peak conditions would be prevalent during the peak hour and might extend into the peak period. The overall two-hour commute period would not be expected to increase substantially in the future. Rather, the occurrence of peak-of-the-peak conditions, now less than one hour, would most likely expand to fill the one-hour peak.

As shown in Table 7, the list-based cumulative analysis, while not comparable with the year 2000 data, produces similar estimates of future demand. The results reflect the tendency of the list-based method to overestimate regional auto travel. The project would represent about 0.1% of the regional auto demand in this condition. The Bay Bridge and I-280 would have excess demand during the peak hour: the Bay Bridge, the Golden Gate Bridge, and I-280 would have excess demand during the peak period. The same conclusions noted above regarding future operating conditions would apply to this condition as well.

Intersection Analysis

Peak-period observations have been conducted on Clementina Street, First Street, Second Street and Folsom Street. Clementina Street's existing p.m. peak hour volume is about 75 vehicles (approaching First Street). This volume primarily reflects traffic generated by existing curb parking and off-street lots. Through traffic is limited and the existing traffic flow on Clementina could be described as stable with little congestion. First Street is a heavily traveled link between the downtown and eastbound ramps to the Bay Bridge. First Street currently carries 1,200-1,300 p.m. peak-hour vehicles north of Folsom. As a result of congestion on the bridge, p.m. peak-period traffic on First Street backs up through the First/Harrison intersection with queues sometimes extending through

the First/Folsom intersection. These conditions on First Street can be described as service level E-F. Vehicles on Folsom are not constrained by queuing, and the level of service is A/B. At Second/Folsom and Second/Howard, p.m. peak-hour operation is service level A (calculation sheets are on pages A-28 to A-30 of the Appendix).

The proposed project is estimated to generate an additional 96 new peak hour vehicles (56 San Francisco and 40 regional autos.)¹⁴ Assuming these vehicles all parked in the project garage and exited the garage to Second Street via Clementina, they would constitute a 4% increase in traffic volume at Second/Folsom if they all traveled through that intersection. This would represent a worst case analysis as some vehicles would not park in the garage or would pass through Second/Howard or exit Clementina onto First Street. If all the vehicles traveled through the Second and Howard intersection, traffic volumes there would rise by 4%. These increases would not be measurable within daily fluctuations in traffic and levels of service would remain the same. However, increased congestion at intersections in the project vicinity could disrupt surface Muni operations.

The localized aspects of cumulative development on streets and intersections immediately adjacent to the project site were prepared using underlying traffic growth factors representing "worst case" scenarios. It is estimated that in the City's northeast quadrant, traffic volumes will grow 8% by the year 1990 and 11% by the year 2000.¹⁵ When these traffic growth factors are applied to current traffic volumes, level of service estimates at area intersections can be made for the years 1990 and 2000. These levels of service are shown in Table 8, page 110.

PARKING

The project's parking demand has been calculated on the basis of trip generation and modal split data. Based upon the project's travel patterns, parking demand would be calculated as follows:

- o 1,764 daily work trips x 22% auto/1.6 persons per auto³/2 one-way trips per auto = 121 long-term parking spaces.
- o 4,421 daily non-work trips x 10% auto²/1.3 persons per auto^{2,3}/2 one-way trips per auto/5.5 turnovers daily¹² = 31 short term parking spaces.

Total project demand = 152

TABLE 8
EXISTING AND PROJECTED P.M. PEAK-HOUR INTERSECTION OPERATION

<u>Intersection</u>	<u>Service Level</u>		<u>Year</u>	<u>Year</u>
	<u>Existing</u> ¹	<u>With Project</u>	<u>1990</u>	<u>2000</u>
Second/Folsom	A	A	A/B	A/B
Second/Howard	A	A	A	A
First/Folsom	E/F*	E/F*	E/F*	F*

*Intersection flow is obstructed by congestion and backups from the First/Harrison intersection with the Bay Bridge on-ramps.

¹EIP counts at Second/Folsom, May 1981; Second/Howard, March 1981; First/Folsom, December 1984.

Project Demand (152 parking spaces) plus spaces existing on-site (74) create a parking demand of 226 spaces. The project would provide 131 spaces in an on-site garage leaving an excess demand of 95 spaces.

Parking in the project vicinity includes 60 parking lots within about a four block radius. These lots have 11,162 parking spaces which are 87% occupied.¹⁶ The project would create a 95 space parking deficit. The deficit could be accommodated by parking facilities in the surrounding area.

The project site lies within the parking belt designated in the Transportation element of the Comprehensive Plan (page 47). The Downtown Plan encourages the short-term use of existing parking spaces within and adjacent to the downtown core by converting all-day commuter parking to short-term parking in areas of high demand.¹⁷ The project site now contains 74 long-term parking spaces. Conversion of the existing parking spaces to short-term and the addition of 57 new short-term spaces would be in accordance with policies stated in the Transportation Element of the Comprehensive Plan and the Downtown Plan.

Clementina Street now has a peak hour traffic volume of 75 vehicles. With additional vehicular activity, localized traffic impacts could be experienced along Clementina Street. The site's existing 74 parking spaces are used primarily by employees, generating about 55 outbound trips during the p.m. peak hour (assuming 75% of the long term spaces generate a p.m. peak-hour trip). The proposed project would be 131 short-term spaces. The short term spaces would generate about 1,440 daily one-way vehicle trips (assuming 5.5 daily turnovers per space). About 15 outbound trips would be generated during the p.m. peak hour (assuming 10% of the short term spaces turn over each hour). This would represent a reduction of 40 peak hour vehicles on Clementina Street.

The estimated parking demand (both long-term and short-term) from the C-3 District in 1984 was found to be about 45,300 spaces, which would occupy about 94% of the 48,000 parking spaces in and near the C-3 District.¹⁸ The short-term parking demand, while representing about 25% of the equivalent daily demand, is about 65% of the daily vehicle travel. Although the equivalent daily demand would leave about 10% of the parking supply vacant, surges in short-term demand (more travel in one period than in another period) can cause temporary localized overloads of parking facilities within various portions of the downtown, even though parking may be available elsewhere in the downtown.

The C-3 District would generate demand for approximately 58,000 equivalent daily parking spaces in the year 2000 under the Downtown Plan, an increase of 28% from 1984. Short-term demand would continue to represent about 25% of the total demand. The project parking demand would represent about 0.3% of the total demand from the C-3 District. The parking supply has been assumed to be about 51,000 spaces. There would be a parking deficit of about 6,000 spaces in the year 2000 if vehicular demand occurs as projected. However, as shown in Table 7, the analysis for the year 2000 forecasts excess auto demand in the peak hour and the peak period. If the excess demand is accommodated on transit or ridesharing, then the overall parking demand would decrease from the above estimate by about 2,300 spaces. If the Goals of the Downtown Plan are met, total parking demand in the year 2000 would be about 48,100 equivalent daily spaces, an increase of six percent over 1984. If the Goals were achieved, there would not be a parking deficit.

The list-based analysis shows future demand for 11,400 spaces from projects in the C-3 District, which when added to the 1984 data, would generate a total demand of 56,700

spaces. While similar to the 58,000-space (unmitigated) demand from the Downtown Plan, the list-based demand is not comparable for the reasons stated above, in particular because the list-based analysis assumes a static modal split and thus overestimates future auto demand.

Although the parking demands discussed above are calculated on the basis of projections for the Downtown Plan, similar conditions would be expected under the five Alternatives in the Downtown Plan EIR. Although not shown in Table 5, parking demand from the C-3 District under Alternative 1 would be about 4% higher than under the Downtown Plan, while that under Alternative 4 would be about 1% lower than that under the Plan.

The project's freight loading needs have been calculated according to City guidelines.¹⁹ The project's freight loading requirement would be:

o	267,760	gsf office space			
		@ 0.1 space/10,000 sq. ft.	=	2.68	spaces
o	15,580	gsf retail and restaurant space	=	1.0	space
	Total		=	3.68	spaces

The project would include three full size freight loading docks and two service vehicle loading areas along the site's Clementina Street frontage.

CONSTRUCTION ACTIVITY

The project would be constructed over an 18-month period, employing about 343 employees at any one time during construction (based on estimated person years of construction). If construction employees exhibit the same travel characteristics as other downtown employees, about 74 auto trips would be generated during the p.m. peak hour. These trips would not change traffic service levels on the adjacent street network. Vehicles used by the 343 construction employees could be accommodated in existing parking lots and garages in the project area. However, construction employees would compete with other employees for the parking available.

During construction, trucks and equipment could disrupt traffic flow along Second and Folsom Streets. If construction trucks use Clementina Street, these vehicles could back on Second Street, affecting traffic flow along Second Street. Cumulative construction

impacts would occur if the proposed project at the southeast corner of Second/Folsom were under construction concurrently with the proposed project. In particular, construction activity (parked trucks and equipment) on both sides of Folsom Street could reduce the traffic carrying capacity of this street. If either Folsom Street or Second Street are partially blocked, the Second/Folsom intersection would degrade to capacity flows (service level E-F). If Folsom Street is reduced to two lanes, unstable flows would result.

To the extent that construction activity would encroach onto sidewalk areas (reducing the sidewalk width available to pedestrians), pedestrian flows would be disrupted. For one year, construction of the proposed project at the southeast corner of Second and Folsom could disrupt pedestrian flows along the south side of Folsom, diverting pedestrians to the north side of Folsom. If sidewalks are blocked on both sides of Folsom Street, pedestrians would probably be diverted to temporary walkways within the existing parking land temporarily displacing curb parking spaces. If an eight-foot walkway can be maintained, the quality of existing pedestrian flows would be unchanged.

TRANSPORTATION MANAGEMENT

To help achieve long term transportation goals, the project sponsor would initiate a comprehensive transportation system management (TSM) program aimed at reducing the peak-hour effects of project travel pursuant to Section 163 of the City Planning Code. This program would continue for the actual lifetime of the project. The project sponsor would execute an agreement with the Department of City Planning for the provision of on-site transportation brokerage services and the preparation of a transportation management program to be approved by the Director of Planning and implemented by the provider of transportation brokerage services. The project sponsor would:

- Designate a permanent Transportation Coordinator as part of the building management staff
- Encourage the investigation and implementation of flex-time programs by providing information on the program's advantages, feasibility, etc.
- Develop a parking program giving priority to ride-sharing vehicles
- Sell Muni Fast Passes and other monthly commute passes on-site
- Make transit routes and schedule information available to employees
- Develop and maintain carpool and vanpool matching services.

¹San Francisco Department of City Planning, Guidelines for Environmental Review: Transportation Impacts, September 1983.

²Caltrans, Tenth Progress Report on Trip Ends Generation, July 1975.

³San Francisco Department of City Planning, Office of Environmental Review, Final Environmental Impact Report for The Downtown Plan, EE81.3, certified October 18, 1984. This document is an analysis of projected growth in the C-3 District to the year 2000 under the Downtown Plan and five alternatives. The transportation analysis in the EIR includes projections of future modal splits for work and non-work travel for the p.m. peak period, peak hour and daily time periods. This document is on file and available for public review at the Office of Environmental Review, 450 McAllister Street, Fifth Floor.

⁴The Downtown Plan EIR contains about 50 pages of text devoted to the description of transportation impacts in the greater downtown area, as well as an additional 30 pages of text describing transportation mitigation measures. The information in this EIR is not intended to be a comprehensive summary of the transportation analysis in the Downtown Plan EIR, but summarizes portions relevant to the proposed project and its contribution to cumulative impacts. For details and assumptions used to arrive at the data and results presented in the Downtown Plan EIR, see Sections IV.E, Transportation Setting and Impact, and V.E, Transportation Mitigation, of the Downtown Plan EIR, which are incorporated by reference into this report and summarized in the text as appropriate.

⁵Metropolitan Transportation Commission, Traffic Survey Series A-48 and MA-60, Spring 1977 and Spring 1983.

⁶The analysis of historic trends in travel patterns is from the following sources: Metropolitan Transportation Commission, Travel Observations of the Bay Bridge Corridor, October 21, 1981; Homburger and Dock, Trends in Traffic Patterns at the Bay Bridge and Caldecott Tunnel, U.S. Department of Transportation, DOT-BIP-WP-32-3-77, July 1977; telephone survey of 500 drivers conducted in April 1980 by Golden Gate Transit, data supplied by Alan Zahradnik, Transportation Planner, on February 16, 1983; Office of the Auditor-Comptroller, Comparative Record of Traffic for the Month of November, May 27, 1937 through November 30, 1982, Golden Gate Bridge, Highway and Transportation District; San Francisco Municipal Railway Planning Division, Projections of Future Muni Demand and Vehicle Requirements, October 1982; San Mateo County Transit District, SamTrans Five-Year Transportation Development Plan: 1983-1988, April 1983; California Department of Transportation, CalTrain Caltrans/Southern Pacific Peninsula Train Service Five-Year Plan 1983-1988, July 1983; and traffic volume counts from Department of Public Works, Bureau of Engineering, Division of Traffic Engineering and from 1983 San Francisco Cordon Count, JHK and Associates, July 1983.

⁷See Downtown Plan EIR, pages II.9-II.11 for a comparison of the cumulative list projections with those of the Downtown Plan EIR.

- ⁶ San Francisco Municipal Railway, Short-Range Transit Plan 1983-1988, July 1983. Bay Area Rapid Transit District, Short Range Transit Plan for the Five-Year Period July 1983 Through June 1988, August 1983.
- ⁹ The one-time Transit Impact Fee requires developers of office projects in San Francisco to contribute to a fund to finance the increased cost of Muni services necessitated by their projects at the rate of \$5 per gross square foot of new construction. This ordinance was recently upheld by the San Francisco Superior Court. Based on application of the \$5 rate to net new office space, (267,760 gsf - 35,000 gsf = 232,760 gsf), the project would yield \$1,163,800.
- ¹⁰ According to Bruce Bernhard, Muni Chief Accountant, telephone conversations, October 11, 1984.
- The deficit due to the project would be 372 peak period Muni trips per day x 252 working days per year x \$0.50 deficit per ride = \$46,872. The total annual Muni trips were derived using the 24-hour trips methodology specified in the Guidelines for Environmental Impact Review: Transportation Impacts, Department of City Planning, September 1983.
- ¹¹ Ward Belding, Supervisor of Office of Research, Bay Area Rapid Transit District. telephone conversation, May 1984.
- The deficit due to the project would be 520 daily BART trips generated by the project x 252 working days per year x \$1.06 deficit per rider = \$138,902.
- ¹² Field Review by George W. Nickelson, EIP Traffic Engineer, September 28, 1983.
- ¹³ Table IV.E.4, p. IV.E.36, of the Downtown Plan EIR contains a discussion of the implications of excess demand at the regional screenlines.
- ¹⁴ The Downtown Plan EIR provides auto occupancy projections by corridor for peak-hour/peak-period travel. Work travel occupancies are 2.7/2.5 East Bay, 1.9/1.8 Peninsula, 1.6/1.5 North Bay, and San Francisco 1.2/1.2. Non-work travel occupancies are 1.0 for all corridors during the p.m. peak hour and peak period.
- ¹⁵ Underlying growth factors were derived from background reports for the Downtown Plan EIR and assume a lower degree of mitigation for Downtown Plan goals. Achievement of Downtown Plan goals would greatly reduce these impacts.
- ¹⁶ Jon Twichell/Associates, South of Market Short-Term Parking Analysis, October 15, 1984.
- ¹⁷ Downtown Plan Proposal as adopted by the City Planning Commission, November 29, 1984, page 116.
- ¹⁸ The parking survey data and other supporting calculations and data used in the Downtown Plan EIR transportation impact analysis are on file and available for public review at the Office of Environmental Review, Department of City Planning, 450 McAllister Street, Fifth Floor.
- ¹⁹ Downtown Plan Ordinance, No. 414-85, effective October 17, 1985. Ordinance provisions have been incorporated into the City Planning Code.

● G. AIR QUALITY

Upon completion, the project would affect air quality in two ways. Emissions would be generated by project-related traffic, and by combustion of natural gas for building space and water heating. Transportation sources would account for over 95% of project-related emissions.

Table 7 shows projected daily emissions of pollutants in 2000 from project-generated traffic for new development in the greater downtown projected by both the cumulative list and the Downtown Plan EIR (EE81.3, certified October 18, 1984), and total emissions projected for the entire Bay Area in 2000 by the 1982 Bay Area Air Quality Plan. The project would contribute about 2% to the emissions generated by new development in the greater downtown, in 2000.¹

Nitrogen oxides (NOx) and hydrocarbons (HC) are both chemical precursors of ozone. Motor vehicles emit more NOx than HC, and the emissions from building natural gas combustion would consist primarily of NOx. As demonstrated by the LIRAQ (Livermore Regional Air Quality model) regional ozone computer simulations performed for the 1982 Bay Area Air Quality Plan, an increase in the future NOx emissions compared to HC emissions would lead to a decrease in ozone compared to present levels. This model has also shown that Bay Area ozone concentrations are expected to be within the federal standard in 1987, and thereafter. As the future NOx emissions from cumulative development in San Francisco would exceed future HC emissions, this development would not lead to an increase in total Bay Area ozone concentrations.

At the same time, total emissions of both NOx and HC are expected to decrease in San Francisco. Total NOx emissions would decrease in San Francisco by about two percent from 1984 to 2000, but would increase in the Bay Area by about five percent from 1984 to 2000. It is possible that excess NOx emissions generated by cumulative development (including the project) could increase ozone and/or nitrogenous oxidant concentrations further downwind, outside the Bay Area. In addition, NOx emissions generated by cumulative development (including the project) throughout the Bay Area could increase

● TABLE 9

PROJECTED DAILY POLLUTANT EMISSIONS

<u>Pollutant</u>	<u>Project</u> <u>1990</u>	<u>Cumulative</u> <u>List</u> <u>1990</u> ²	<u>Emissions (tons per day)</u> ¹			
			<u>Downtown Plan</u> ³		<u>Bay Area</u> ⁴	
			<u>1990</u>	<u>2000</u>	<u>1990</u>	<u>2000</u>
Carbon Monoxide	.09	17.0	6.8	6.6	1,952	1,883
Hydrocarbons	.01	1.4	0.6	0.6	428	428
Nitrogen Oxides	.01	1.8	0.8	0.8	558	610
Sulfur Oxides	.001	0.2	0.1	0.1	194	233
Particulates	.014	2.7	1.1	1.3	562	649

¹Project, Cumulative List, and Downtown Plan emissions calculated using BAAQMD, EMFAC6C vehicular emission factors. Emissions of CO, HC and NOx include an assumed six minutes of idling time per vehicle trip. Emissions of TSP include dust entrained from roadway surfaces.

²Incremental emissions of downtown area development based on list of projected Cumulative Office Development in Downtown San Francisco as of March 10, 1984 (Table C-1, page A-32 of this report).

³Incremental emissions of C-3 District development, per Downtown Plan EIR, Table IV.I.2, page IV.I.12.

⁴Cumulative total emissions of Bay Area development, per ABAG, BAAQMD, MTC, 1982 Bay Area Air Quality Plan.

Source: EIP Corporation

acid rain further downwind, outside the Bay Area, though to a relatively small extent due to the magnitude of the increase and to dilution over time and distance.

In 2000 (according to the Downtown Plan EIR), area-wide traffic volumes in the downtown area would increase by about 8% and 15%, respectively, over 1984 volumes; average traffic speeds would decrease by about two mph, from 1984 speeds. However, in 2000 the average vehicle is expected to emit 43% less carbon monoxide (CO) than in 1984 due to ongoing state and federal emissions controls.

CO concentrations at 11 representative intersections in the downtown study area, as analyzed in the Downtown Plan EIR, would decrease from 1984 to 2000. CO concentrations at 10 of the 11 intersections would be within the state and federal standards in 1990 and 2000 under the Downtown Plan. CO concentrations at one intersection (Brannan and Sixth Streets) would continue to violate the state and federal eight-hour standards in 2000 under the Downtown Plan. This suggests that additional intersections not selected for analysis in the Downtown Plan EIR might also violate air quality standards.

Curbside CO concentrations at selected intersections that would be affected by project-generated traffic and by cumulative development traffic were projected for conservative conditions, and are compared with ambient standards in Table 10, page 118. These projections were calculated using a revised version of the Modified Linear Rollback (MLR) method which was developed for the Downtown Plan EIR.

The results indicate that violations of the state and federal eight-hour average CO standards currently occur at the three intersections studied under worst-case meteorological conditions. Although maximum eight-hour average values for 1984 do violate the standard of 9 ppm, no exceedences of the applicable CO standards are projected for 1990 at any of the locations analyzed, under any scenario.

The California Legislature has mandated a biennial inspection and maintenance (I/M) program which applies to most cars and light trucks in California. An annual I/M program

● TABLE 10
PROJECTED WORST-CASE CURBSIDE CARBON MONOXIDE CONCENTRATIONS
AT SELECTED INTERSECTIONS

<u>Intersection</u>	<u>Averaging Time</u>	<u>Concentrations (ppm)¹</u>			
		<u>1984</u>	<u>Cumulative List 1990²</u>	<u>Downtown Plan³</u>	
Howard/Second	1-hour	13.7	10.1	10.1	9.3
	8-hour	<u>10.1</u>	8.3	8.5	7.9
Folsom/Second	1-hour	12.5	9.4	9.4	8.7
	8-hour	<u>10.6</u>	7.8	7.9	7.1
First/Folsom	1-hour	14.6	11.6	11.6	10.4
	8-hour	<u>11.1</u>	8.7	8.7	7.8

¹ Calculations for all scenarios were made using a revised version of the Modified Linear Rollback (MLR) method described in the Downtown Plan EIR. Background concentrations were calculated to be 7.4 ppm for one hour and 5.7 ppm for eight hours in 1984, 6.0 ppm for one hour and 4.5 ppm for eight hours in 1990, and 5.7 ppm for one hour and 4.1 ppm for eight hours in 2000. Underlined values are in excess of the state or federal CO standards. The one-hour state standard is 20 ppm, the one-hour federal standard is 35 ppm, and the eight-hour state and federal standards are 9 ppm.

² Based on list of projected Cumulative Office Development in Downtown San Francisco as of March 10, 1984, Appendix C, Table C-1.

³ Based on growth projection methodology contained in Downtown Plan EIR, Table IV.I.3, page Comments and Responses - I.8.

Source: EIP Corporation

was evaluated in the 1982 Bay Area Air Quality Plan based on the 1979 source inventory. Based on predicted reduction in hydrocarbons and CO of 25% in vehicles covered, a reduction in total motor vehicle-generated CO of about 18% would be expected. The reduction in total regional CO emissions would be about 16%. The reduction in motor vehicle-generated hydrocarbons would be about 17%; the reduction in total regional hydrocarbon emissions would be about 6%.

As CO concentrations in downtown San Francisco are almost entirely due to motor vehicles, future CO levels are predicted to be lower than they would be without an I/M program. Thus, actual concentrations are expected to be lower than CO concentrations shown in Table 9 and CO and HC emissions shown in Table 9, because the cumulative list and the Downtown Plan EIR did not take the I/M Program into account.

Emissions of total suspended particulates (TSP) resulting from construction and from vehicle trips generated by the project and cumulative development would increase TSP concentrations, which could increase the frequency of TSP standard violations in San Francisco, with concomitant health effects and reduced visibility.²

Emissions of sulfur oxides (SOx) generated by the project and by cumulative development would not bring San Francisco's sulfur dioxide (SO₂) concentrations measurably closer to violating the standard.

The 1982 Bay Area Air Quality Plan contains strategies which consist primarily of HC and CO emission controls on stationary sources and motor vehicles, and transportation improvements, and are aimed at attaining the federal ozone and CO standards. As discussed above, emissions associated with the project and with cumulative downtown development under both the cumulative list and the Downtown Plan are not projected by this EIR or the Downtown Plan EIR to increase ozone concentrations, and thus would not conflict with the objectives of the 1982 Bay Area Air Quality Plan regarding ozone. Cumulative downtown development is projected by the Downtown Plan EIR potentially to result in a violation of the eight-hour CO standard at the Brannan/Sixth intersection analyzed therein. The model used to make the CO projections may not be accurate to within the percentages of the excesses. The Downtown Plan EIR includes a mitigation

measure requesting BAAQMD to install CO "hotspot" monitors downtown in order to validate the model used therein. This winter the City monitored CO and counted traffic at the Sixth and Brannan intersection. Once these data are analyzed, it should be possible to validate and recalibrate, if necessary, the model projections. Until then a determination of whether cumulative downtown development would conflict with objectives of the 1982 Bay Area Air Quality Plan regarding CO cannot be made.

The pollutant emissions and CO concentrations shown in Tables 9 and 10 were projected for 1990 on the basis of two different sets of future growth assumptions, with differing results. In one case, a list of specific projects proposed, approved, and under construction was used (see Appendix F, pages A-52 through A-53). In the other case the employment growth trend approach of the Downtown Plan EIR was used, and those projections presented. In both cases, the method for air quality analysis was identical. However, the results using projected cumulative development are not directly comparable with those from the Downtown Plan EIR for several reasons.

First, it is reasonable to assume that the projected cumulative development on the list would be completed and the space it provides absorbed sometime between 1990 and 2000 (probably in the mid-1990s), rather than in either of those two analysis years which were used in the Downtown Plan EIR. The pollutant emissions and CO concentrations were calculated for 1990 using the cumulative list, even though those projects are not expected to be completed and absorbed until the mid-1990s, in order to provide a comparison with the Downtown Plan EIR results. However, this has the effect of artificially increasing the cumulative list results, because average-vehicle emission rates will decline with time, as a result of state and federal controls.

Second, the transportation analysis used for the Downtown Plan EIR differs from that used for the cumulative list, as described in the Transportation section of this report (pages 88-92). Briefly, these differences include the fact that a cumulative list-based analysis assumes the same proportion of new employees would commute by private auto as is currently the case. In contrast, the Downtown Plan EIR analysis projects a shift of commuters from driving alone to carpool and transit, because commute routes such as the Bay Bridge are already at or near capacity and could not accommodate all of the vehicles that would be used if the proportion of persons driving alone to work remained constant.

Other reasons for the differences include the use in the cumulative list analysis of a constant regional distribution of trips, whereas the Downtown Plan EIR forecasts a declining percentage of new employees residing in San Francisco, and the lack in the cumulative list approach of discounting factors to account for trips between individual projects within the Downtown. Also the cumulative list applies to the entire downtown area, a larger geographical area than that analyzed in the Downtown Plan EIR, which contains specific forecasts for the C-3 District, but also includes consideration of cumulative impacts of development outside the C-3 District.

Thus, total (regional) vehicle miles traveled and the resulting pollutant emissions projected using the cumulative list approach are considered artificially high. On a local intersection basis, traffic volumes and the resulting CO concentrations might or might not be higher with the cumulative list approach, depending on the particular location. This is because the cumulative list method does not distribute traffic on all the same streets in the same proportions as does the Downtown Plan EIR method.

¹Impacts anticipated from cumulative downtown development have been analyzed in the Downtown Plan Environmental Impact Report (EIR), (EE 81.3, certified October 18, 1984). The air quality setting, impacts and alternatives discussion in the Downtown Plan EIR, (Vol. 1, pp. IV.I.1-19 and VII.I.1-8; Vol. 2, pp. O.1-9; Vol. 3, Part 1, pp. C&R-I, 1-11) is summarized in the text of this EIR and incorporated by reference herein.

²State particulate standards were adopted in 1983 to concentrate on fine particulate matter which has been demonstrated to have health implications when inhaled. Until the State adopts a method for monitoring fine particulate matter, it is not possible to determine what proportion of TSP in San Francisco would be subject to review against the new standards, whether new standards would be violated, or what the health implications would be.

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H. ENERGY

Pacific Gas and Electric Company supplies energy to San Francisco customers. Electrical energy is generated from various sources of energy including oil, gas, hydroelectric, geothermal, nuclear, wind, cogeneration and solid waste.¹ In future years, PG&E expects to generate electricity from these sources and from coal.

The proportion of energy from oil and gas is expected to decrease by 1990 with corresponding increases in the proportion of energy from the other sources listed above.²

Existing annual energy use at the site of the proposed project is shown in Table 11.

TABLE 11
EXISTING ANNUAL ENERGY USE AT THE PROJECT SITE

<u>Address</u>	<u>Natural Gas Therms</u>	<u>Electricity Kilowatt hours</u>
580 Folsom	3,986	5,500
590 Folsom	--	192,000
596 Folsom	360	3,600
299 Second	720	27,600
81 Clementina	<u>145</u>	<u>30,000</u>
	5,211	258,700

Source: Pacific Gas and Electric Company, San Francisco, California.

The project would require about 44 billion Btu of energy for construction in the form of gasoline, diesel fuel, electricity and lubricants. This is the energy equivalent of 7,850 barrels of oil. Distributed over the estimated 50 year life of the project this would be about 880 million Btu per year, or about 1.7% of the total annual building energy requirements.

New buildings in San Francisco are required to conform to energy conservation standards specified by Title 24 of the California Administrative Code. The State allows building developers to comply with the standards through the component performance standards method which requires the incorporation of a set of specific design features, through the use of nondepletable energy resources, or by demonstrating that the building would consume no more than a specified quantity of energy, expressed as BTU's per square foot-per year (energy budget).³ Documentation showing compliance with these standards is submitted with the application for the building permit, and is enforced by the Bureau of Building Inspection.

At this stage in the project design, there is insufficient information upon which to base a building energy budget analysis for either Title 24 compliance or other engineering purposes. Therefore, estimates of the likely energy consumption of the proposed project have been made based upon comparisons with other recent projects in San Francisco⁴ and assuming compliance with Title 24 by the energy budget method. The resulting estimates are shown in Table 12, page 126.

Daily and annual load distribution curves for the project cannot be estimated at this time because of the lack of detailed design information. As load curves are not governed by Title 24, no reasonable assumptions are readily available. It may be noted, however, that similar projects in San Francisco for which load curves have been developed show peak electrical consumption occurs on hot August or September afternoons (due to demand for cooling), which coincides with PG&E's systemwide peak.⁵ The peak electricity demand of the project would be about 1400 KW and would coincide with PG&E's system-wide peak. This would add an estimated .009% to PG&E's system-wide peak load of 16,000 MW.⁶ Representative load curves for natural gas and electricity consumption in office buildings are shown in Figures 29 and 30, pages 128 and 129. The drop in electrical demand at the noon hour shown in Figure 29 is due to smaller demand for appliance operation and cooling as workers stop for lunch. Natural gas demand of other office projects has been predicted to peak during cold January mornings, which does not coincide with the systemwide peak, which occurs on cold January evenings. Peak daily natural gas consumption would be about 16 million Btu per day or about .0004% of PG&E peak load of about 4.1 trillion Btu per day.⁷ The actual load curves for the proposed project would be expected to be

TABLE 12
ESTIMATED PROJECT ENERGY USE ¹

Allowable Under Title 24 Energy Budget

Total annual Btu ² per square foot of office space	126,000 Btu per square foot per year
Total annual Btu per square foot of retail space	200,000 Btu per square foot per year

Daily Natural Gas Consumption³

Estimated daily natural gas consumption per square foot	40 Btu
Estimated peak daily natural gas consumption ⁴	160 therms

Monthly Electric Consumption⁵

Estimated monthly electric consumption per square foot	1.4 kilowatt hours
Estimated total monthly electric consumption	0.4 million kilowatt hours

Annual Consumption

Estimated total annual natural gas consumption	36,900 therms
Estimated total annual electric consumption	4.7 million kilowatt hours
Connected kilowatt load	1,700 kilowatts
Estimated total annual energy consumption	51 billion Btu equivalent to 8,976 barrels of oil

Footnotes for Table 12:

¹The project would include 267,760 sq.ft. of office space, 10,000 sq.ft. of retail space, and 5,580 gsf of restaurant space. Energy use includes space conditioning, service water heating and lighting in accordance with allowable limits under Title 24. Estimated electricity consumed by typewriters, computers, coffeemakers, etc., is included in the

projections, although not included in the Title 24 estimates. Transportation energy use appears in a separate table.

²Btu (British Thermal Unit): A standard unit for measuring heat. Technically, it is the quantity of heat required to raise the temperature of one pound of water 1° Fahrenheit (251.97 calories) at sea level.

³The assumed split between electricity and natural gas for office and retail (90% electricity, 10% natural gas) uses is based upon predicted consumption rates of other San Francisco projects. However, this "split" is sensitive to the design used; actual consumption rates may differ considerably.

The amount of gas that would be consumed is based on unpublished building energy consumption data supplied by David Rubin, Department of City Planning, oral communication, April 1984.

⁴As detailed engineering studies have not been performed for the proposed design, estimates of peak natural gas consumption are highly speculative. A review of load curves prepared for other projects indicates that peak demand may be about 50% greater than average demand. The estimate here is based on that assumption.

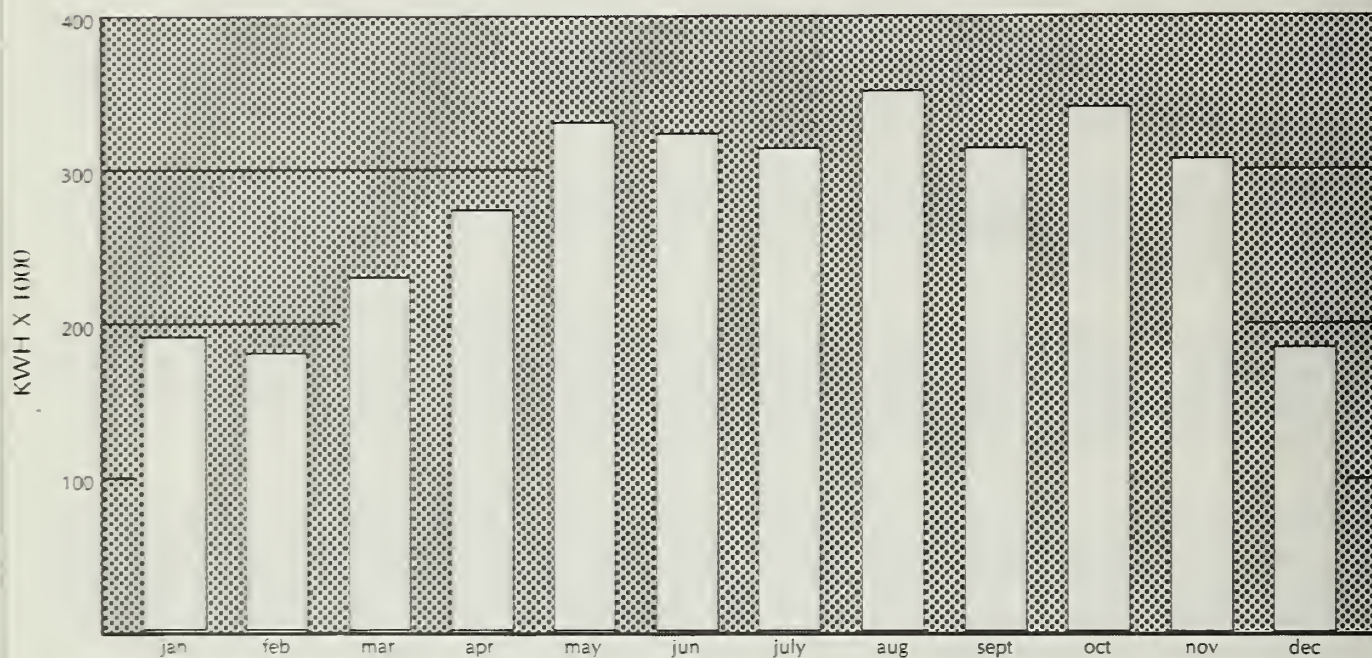
⁵The amount of electricity that would actually be used includes non-occupant loads covered by Title 24 as well as electric loads from computers, copiers and typewriters. The total estimated electricity consumption is based on unpublished building energy consumption data supplied by David Rubin, Department of City Planning, personal communication, April 1984.

Note: Energy Conversion Factors:
 one gallon gasoline = 125,000 Btu
 one kilowatt (kw) = 10,239 Btu assuming operational
 efficiency of 33% for fossil or nuclear fueled power plant
 one therm = 100,000 Btu
 one cu.ft. of natural gas = 1,100 Btu at source
 one barrel of oil = 5,600,000 BTU

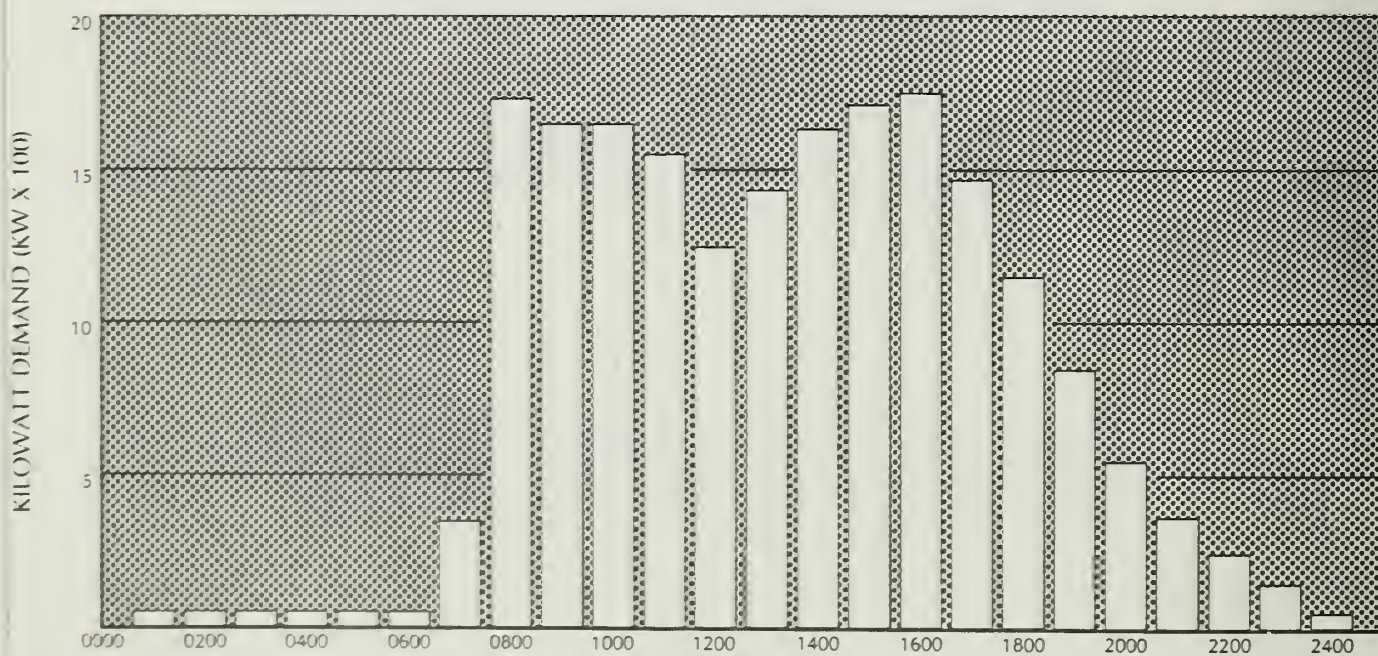
TYPICAL ELECTRICAL CONSUMPTION

FIGURE 29

SOURCE: DEPARTMENT OF CITY PLANNING
PEIR, Spear and Main Street Office Building, San Francisco, May 1982

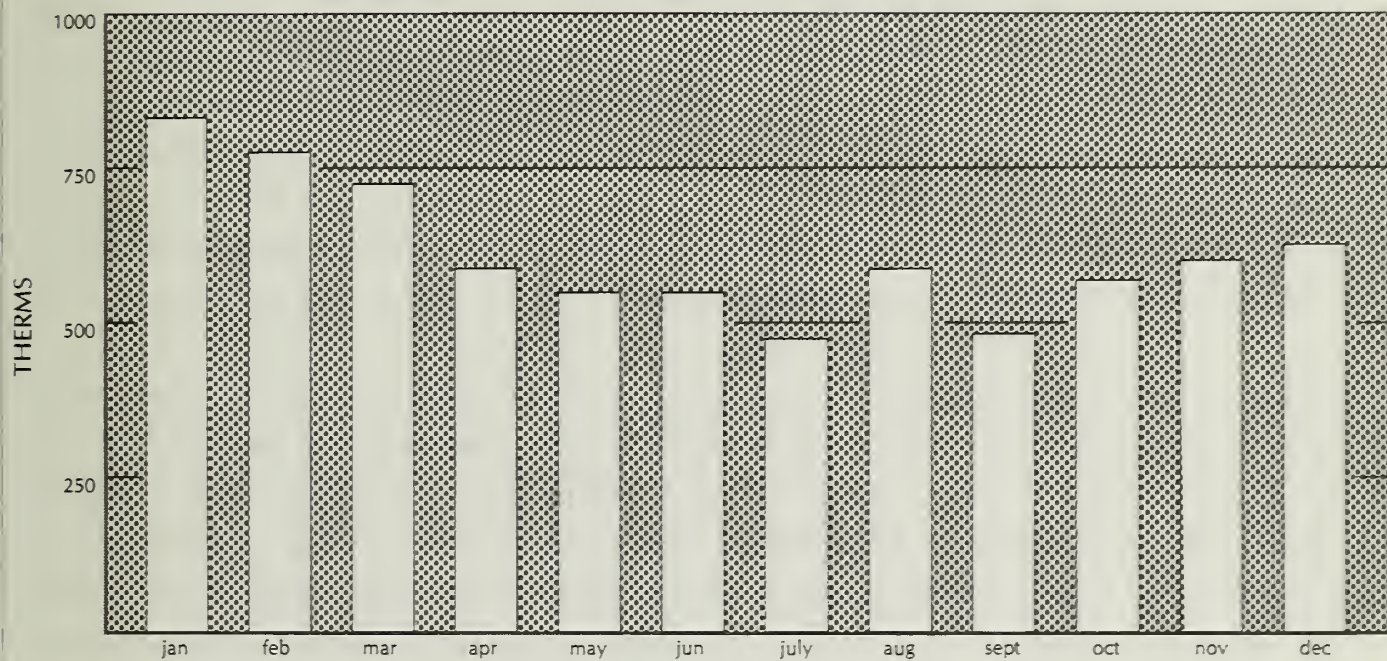


MONTHLY CONSUMPTION

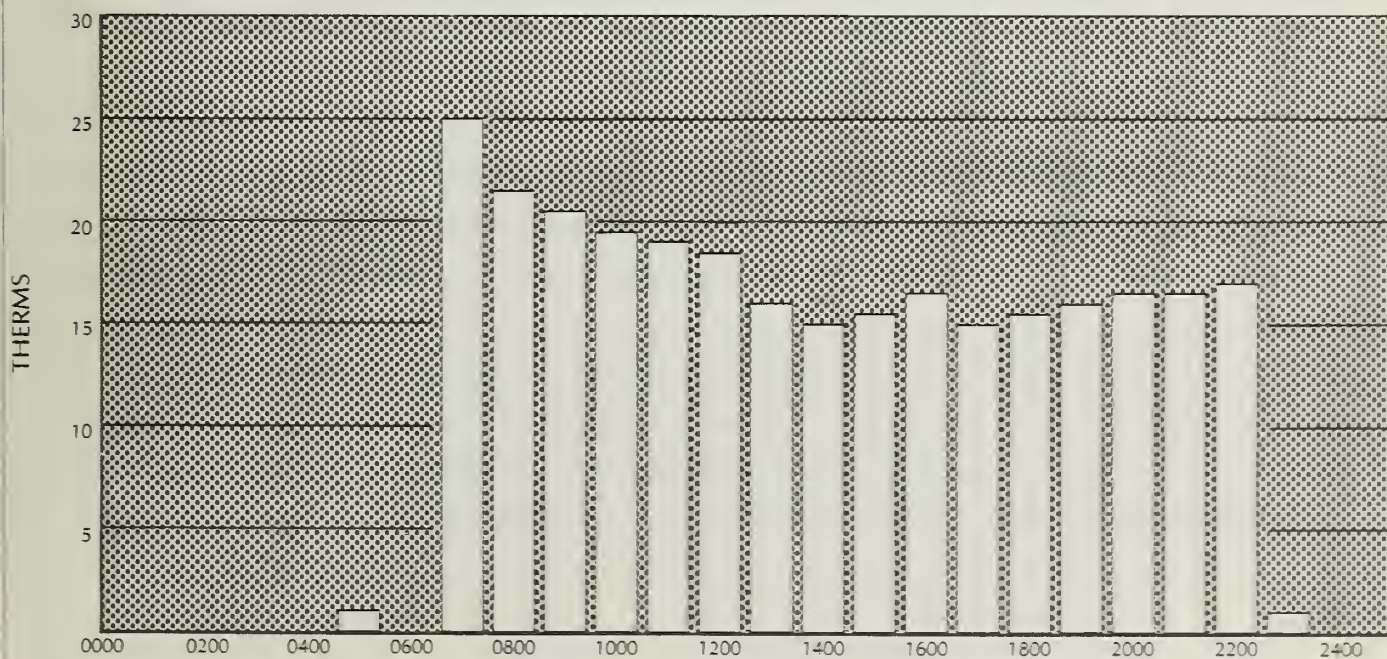


HOURLY CONSUMPTION

SOURCE: DEPARTMENT OF CITY PLANNING
FEIR, Spear and Main Street Office Building, San Francisco, May 1982



MONTHLY CONSUMPTION



HOURLY CONSUMPTION

similar in shape but different in magnitude of demand from those in Figures 29 and 30. Information upon which to base project-specific curves is unavailable at this time.

The project would respond to Policies 1 and 4 under Objective 3 of the City of San Francisco's Energy Element of the Comprehensive Plan through its compliance with Title 24 of the California Administrative Code. Policy 1 is to "increase the energy efficiency of existing commercial and industrial buildings through cost-effective energy management measures." Policy 4 is to "Promote commercial office building design appropriate for local climate conditions. In addition, those measures identified in the transportation section of this report which would reduce motor vehicle travel, and therefore energy consumption, respond to Policy 1 under Objective 4 which states: "Increase the use of transportation alternatives to the automobile."

Based on the March 10, 1984 list of cumulative office development in downtown San Francisco (Appendix C, page A-32), yearly estimated electrical consumption for the projected 19 million square feet of additional office space in downtown San Francisco would be approximately 340 million kWh of power per year (see Appendix C, Table C-1, page A-32 for a list of these projects).⁸ Pacific Gas and Electric Company, in examining its ten-year load growth projections for San Francisco, believes that growth rates of net new office space in the downtown area will diminish in the next decade from the historic figure of 1.5 million square feet per year to between 1 million and 1.2 million square feet per year.⁹ Total increased energy demand for the next decade would be approximately 200 million kWh of electricity per year, less than projected using the cumulative list.¹⁰ The lower PG&E prediction is largely due to its lower estimation of future development.

Projections of electrical use for growth that would occur under the Downtown Plan EIR indicate an increase of about 210 million kWh of electricity per year between 1984 and 1990 as a result of all new development occurring in the C-3 District. From the period 1984 to 2000, electrical consumption rates would increase annually by 330 to 350 million kWh above present figures, or 120 million to 140 million kWh per year above the increases estimated for the 1984-1990 period.¹¹ Electric requirements for development that would occur with the alternatives analyzed in the Downtown Plan EIR would increase between 300 million and 500 million kWh per year between 1984 and 2000.¹²

Natural gas consumption for new office development would be less than current demand, which includes consumption in older, less energy-efficient buildings.⁸ Based on growth estimates contained in the Downtown Plan EIR, the Department further estimates that, between 1984 and 2000, gas consumption will grow by 470 million cubic feet (about five million therms), per year of which 210 million cubic feet (about two million therms) per year would be for office uses.¹¹ Between 1984-2000 natural gas requirements for development that would occur with the alternatives analyzed in the Downtown Plan EIR would increase between 580 and 810 million cubic feet (about six to nine million therms) per year between 1984 and 2000.¹²

For two reasons, referenced estimates in the Downtown Plan EIR are not directly comparable to those estimates made by applying energy consumption factors to the square footage of projected cumulative development (list method). First, the list-based energy projections estimate energy demand at the time of full buildout (mid-1990s) rather than during the 1984-1990 and 1990-2000 time periods as in the Downtown Plan EIR. Second, about 75% of the projects on the March 10, 1984 list of projected cumulative development in downtown San Francisco fall within the C-3 District boundary, which means the list method estimates energy consumption for a larger area than the Downtown Plan EIR. The PG&E projection cannot be compared to the projections in the Downtown Plan EIR because they cover different time periods. A comparison of the Downtown Plan and PG&E estimates for projected energy demands in downtown San Francisco for 1990-2000 is being prepared by PG&E in a report to be released later this year. PG&E plans to meet increased San Francisco energy demands to the year 2000 are discussed on pages IV.G.13-14 of the Downtown Plan EIR, which are hereby incorporated by reference. In summary, that material indicates the demand increases in electricity would be met from nuclear sources, oil and gas facilities, hydroelectric and geothermal facilities, and other sources such as cogeneration, wind and imports. PG&E plans to continue receiving most of its natural gas from Canada and Texas under long-term contracts.

Transportation demand generated by the proposed project would also result in energy consumption. The amounts of electricity, gasoline and diesel fuel which would be consumed by various modes of transit are shown in Table 13. These figures were calculated based on data contained in the Downtown Plan EIR. The total annual

transportation energy which would be consumed by the proposed project is 4.3 billion Btu, the energy equivalent of 800 barrels of oil.

TABLE 13
PROJECT RELATED ANNUAL TRANSPORTATION ENERGY CONSUMPTION ¹

	Electricity (kilowatt hours)	Gasoline (millions) (gallons)	Diesel (gallons)	Total BTU (millions)
Auto/Taxi/Jitney/Motorcycle		18,000		2,500
BART	106,000			1,100
Muni Electric	21,000			200
Regional Bus Systems			2,700	1,400
SPRR			700	100
Project Total	127,000	18,000	3,400	4,300

¹ The methods used to calculate these figures are described in detail in the Downtown Plan EIR, EE81.3, certified October 18, 1984, Appendix N. The associated data is contained in Table N.6.

¹ Pacific Gas and Electric Company, 1981 Annual Report, San Francisco, California, 1982.

² Pacific Gas and Electric Company, 1980 Annual Report, San Francisco, California, 1981.

³ State of California Energy Resources Conservation and Development Commission, Conservation Division, Energy Conservation Design Manual for New Nonresidential Buildings, 1984.

⁴ Unpublished building energy consumption data.

⁵ Load curves for air-conditioned office buildings in San Francisco tend to be similar across a wide range of building designs. This is because energy consumption rates correlate well with outside temperature and working hours. The load curves shown in Figures 29 and 30, pages 128 and 129, were selected to provide an indication of the shape of the actual load curves, which cannot be calculated until the design work has proceeded further. An example of similar load curves can be found in the Final EIR for the Second Street Square (82.591E), FEIR certified January 12, 1984.

⁶ Pacific Gas and Electric Company, March 1982, "Summary of Loads and Resources, (Form Number R-1A).

⁷ Hubert Luders, Industrial Power Engineer, PG&E; letter communication, April 13, 1982.

⁸ Energy consumption factors of 18 kWh sq.ft./year and 11 cu.ft./year (about 12,100 BTU) are based on unpublished data of actual building consumption rates supplied by David Rubin, Department of City Planning, personal communication, April 1984, and include base power consumption of the building core (uses covered by Title 24) and power demands of electric office machines (uses not covered by Title 24).

⁹ Ken Austin, Commercial-Industrial Marketing Supervisor, Pacific Gas and Electric Company, letter of March 23, 1984. This letter is available for public review at the Department of City Planning, Office of Environmental Review, 450 McAllister St., 5th Floor, San Francisco.

¹⁰ PG&E's analysis of a typical office building yielded an annual consumption of about 17 kWh per sq. ft. per year which agrees with the city's estimate within the limits of estimation methodology.

¹¹ City and County of San Francisco, 1984, Downtown Plan EIR, Volume I, pp. VII.G.1-VII.G.17. The Downtown Plan EIR uses a consumption rate factor of 18 kWh/sq.ft./year from 1984-1990 and 16 kWh/sq.ft./year from 1990-2000. These different factors are due to Title 24 revisions to reduce building energy budgets. These new standards would be reflected by lower electrical consumption in buildings constructed by 1990.

¹² City and County of San Francisco, 1984, Downtown Plan EIR, Volume I, pp. IV.G.1-IV.G.17, and pp. VII.G.1-VII.G.4.

I. EMPLOYMENT AND HOUSING

1. Employment

At full operation, the proposed project would provide about 1,053 permanent jobs for office, retail and janitorial/service functions. These would include about 974 office workers (at one worker per 275 gsf of office space for 267,760 square feet), 16 restaurant workers (at one worker per 350 gsf for 5,580 gsf), 29 retail workers (at one worker per 350 gsf for 10,000 square feet), 25 janitorial/service workers (at one worker per 12,000 gsf for the entire building) and 9 parking operators (at one worker per 5,100 gsf for 45,734 square feet).¹ The proposed project would net 949 new permanent jobs for office, retail and janitorial/service functions.

The jobs generated by the proposed project would create additional Bay Area employment through a multiplier effect. Assuming that the new jobs created by the project were primarily in the finance, insurance and real estate (FIRE) industries, about 4,048 additional jobs in other sectors of the Bay Area economy could result. Table 14, page 135, shows the distribution of this secondary employment by sector. The multiplier encompasses the entire Bay Area. As a result, the specific number of additional jobs in San Francisco created by the multiplier effect is impossible to calculate.

An estimated 4,593 permanent net new Bay Area jobs would be supported by the project's addition to the stock of office space (949 net new direct jobs plus the 3,644 net new jobs induced by the multiplier).

Construction activities are expected to take about one and one-half years and generate about 221 person-years of construction labor.² As a result of project construction's multiplier effect, about 343 additional person-years of employment would be generated in the Bay Area.³

● 2. Housing

a. Project-Generated Housing Demand and Housing Policy

To the extent that the project would attract employees from outside the City and contribute to the formation of additional households by existing City residents, it would also contribute to increased housing demand in San Francisco. Not all of the

TABLE 14

SECONDARY EMPLOYMENT DISTRIBUTION IN THE
BAY AREA AS A RESULT OF THE MULTIPLIER EFFECT

Sector	Employees	
	Gross	Net
Office	3,934	3,538
Computer	0	0
Retail	35	35
Maintenance	60	60
Hotel	0	0
Restaurant	19	12
TOTAL	4,048	3,644

Source: EIP, based on the Association of Bay Area Governments Study, 1980 Hybrid Input - Output Model for the San Francisco Bay Region, April 1984, page XIV. The multipliers used in the analysis are Type II, which includes indirect and induced employment generation, and should be viewed as the theoretical maximum impact level. Actual employment generation would probably be somewhat less. Columns may not total due to rounding. Multipliers are: office = 4.04; retail = 1.22; maintenance = 2.36; hotel = 1.37; restaurant = 1.22.

- project's net new employees would seek housing in the City. Some new employees would choose to live outside of the City and others may currently live outside of the City and not necessarily change their residence location as a result of a new job location.
- San Francisco's Office Affordable Housing Production Program (OAHP) requires housing to be provided to offset the demand created by office development, for all projects including more than 50,000 gross sq.ft. of office space. On August 18, 1985, the Office Affordable Housing Production Program, Ordinance No. 358-85, became effective and is now contained in the Planning Code at Section 313. The program estimates that a demand for 0.386 housing units is created for each 1,000 gross sq.ft. of office space built. Based on this formula, the requirement for this project would be the development of 90 housing units,⁴ at least 62% of which must be affordable to households of low or moderate income for 20 years. An option available to the sponsor would be the payment of \$1,242,938 in lieu of development of housing units.⁵
- As part of the 90-unit requirement, 67 units have been approved via Section 313(h) of the Planning Code which provides that credits established under the OAHP Interim Guidelines can be applied to a project sponsor's housing requirement under the OAHP Ordinance on the basis of 2.3 Interim Guidelines credits for 1.0 housing unit under the Ordinance. The project sponsor received approval for 154 Interim Guidelines credits from the City Planning Director on April 8, 1985.

b. Housing Affordability

Based on available data, an approximation of a housing affordability analysis appears in Appendix E, Table E-2, page A-50. Data in the table rely on published sources of office worker incomes (not household income), and prices of housing (without regard to housing availability). Assumptions are made regarding ratio of housing expenses to income, mortgage interest rates and down payments. Analysis based on these data and assumptions indicates that most project employees would not be able to afford housing ownership in San Francisco, although a significant minority, depending on the number of workers per household, would be able to do so. Most project employees, except the lowest-paid clerical employees desiring to live alone, would be able to afford rental housing in San Francisco.

Pursuant to CEQA guidelines, Section 15150a, discussion of housing affordability for new office workers, is incorporated by reference from the Second Street Square Final EIR, 82.591E, certified January 12, 1984 (pages 53 to 55). Briefly, while a survey of occupants of a building comparable to the project would yield some housing affordability data, accurate identification of housing affordability characteristics for persons entering the San Francisco housing market as a result of a new office project is virtually impossible. Two major steps are required in such analysis. The first step involves identification of the workers who are newly employed in San Francisco as a result of the project. The problems with making such a determination include: a) the identity of persons employed in the newly constructed space cannot be known prior to occupation of the project; b) persons working in newly constructed space would not necessarily be newly employed in San Francisco; c) newly created employment opportunities may be filled by persons already employed in San Francisco; and d) persons newly employed in San Francisco in newly created jobs may not have obtained their jobs as a result of the project.

The second step involves determining the amount of money that the household of the new workers could, or would, pay for housing. Such an analysis would require a survey beyond the usual areas of housing preference, current housing costs and income, to determine personal household information such as family assets, debts, tax position, etc. Since many people may be unwilling to provide such personal information, the responses received would not accurately reflect current housing affordability.

3. Cumulative Effects

a. Downtown Office Space

The proposed project, together with other major downtown office buildings under formal review (8.7 million net new square feet), approved (4.8 million net new square feet) and under construction (5.1 million net new square feet) would add about 19.0 million gsf of net new office space if all were to be built (see Appendix C, Table C-2, page A-42 of this report). This list subtracts existing office space, on the sites of new buildings, that would be demolished. Of the 19.0 million gsf of net new office space on the cumulative list, about 13.0 million are within the C-3 District.

Forecasts for alternatives in the Downtown Plan EIR for the C-3 District indicate a total of about 70.5 million gsf of office space in 1990 and between 77.5 and 86.5 million gsf of office space in 2000, an increase of 14.4 to 24.4 million square feet. The Downtown Plan would result in an increase of about 16.8 million square feet.⁶ These forecasts considered land availability, location preferences, market conditions and economic trends as independent variables, plus various zoning and planning policies of the Downtown Plan and the five alternatives analyzed in the Downtown Plan EIR. The Downtown Plan EIR forecasts space expected to be built and occupied in the C-3 District between 1984 and 2000.

The amounts of office space on the cumulative list and in these forecasts, although distinct from each other, can be compared. The list contains about 13.0 million square feet of office space in the C-3 District; the Downtown Plan EIR indicates about 8.4 million square feet of office space being added to the C-3 District between 1984 and 1990. The 13.0 million square feet on the list would be expected to be absorbed in the mid-1990s.

Office space projections for all alternatives in the Downtown Plan EIR for the year 2000 would exceed both existing and cumulative-list office space, as the cumulative list cannot take into account projects not yet proposed. Office space on the cumulative list would be absorbed in the mid-1990s under all Downtown Plan EIR alternatives. These comparisons are based on the assumption that all projects on the cumulative list would be built as proposed and projects not yet proposed (i.e., not on the cumulative list) would not be built before the years identified above. In addition, these comparisons are based only on C-3 District projects on the cumulative list.

b. Residence Patterns and Housing

This section takes a long-term perspective, focusing on changes in downtown office workers living in San Francisco and the housing market implications of downtown growth.

Future Residence Patterns: Employment growth and building development in downtown San Francisco will result in more employees working and living in the City. Over time, more existing residents will take San Francisco jobs and others who take San Francisco jobs will move into the City.

Downtown Plan Forecast as Cumulative Context: Forecasts of residence patterns in the year 2000 were prepared for the Downtown Plan EIR.⁷ The scenario of C-3 District building development and employment growth under the Downtown Plan, as described in the Downtown Plan EIR, incorporates the effects of policies affecting the size, cost and location of new development as well as underlying economic conditions influencing the demand for space. The forecasts of residence patterns for this growth scenario incorporate future housing, labor force and employment patterns in San Francisco and throughout the region and consider changing demographic, housing market and transportation factors.

According to the Downtown Plan forecasts, approximately 189,000 C-3 District office workers would be living in San Francisco in 2000. This represents an increase of 30,000 residents employed in C-3 District offices over the 159,000 estimated for 1984, a 19% increase.⁸ Relatively more employed San Franciscans would be employed in C-3 District office jobs. The percentage (employed San Franciscans holding C-3 District office jobs) would increase from 45% in 1984 to 47.5% in 2000. Relatively fewer C-3 District office jobs would be held by San Franciscans. The percentage (C-3 District office jobs held by San Franciscans) would decline from 55.5% in 1984 to 50.2% in 2000. These changes would result from cumulative development and employment growth in the C-3 District between 1984 and 2000.

It is important to understand the difference between the two percentages above. In each case, the same estimate of the number of jobs held by San Francisco residents is compared to an estimate for a larger group: to all employed residents of the City in the first instance and to all C-3 District office employment in the second. The percentages are different since the number of employed residents is different from the number of office jobs. These percentages describe the same employment situation, but from different perspectives. The percentage of jobs held by City residents is used more often, primarily for transportation analysis. The percentage of City residents who work in downtown San Francisco is used less often. This latter perspective is a more direct measure of the role of downtown jobs in employing San Francisco's residents.

The Downtown Plan forecasts fall within the range of estimates of C-3 District office workers living in San Francisco that was identified by the analysis of alternatives in the

Downtown Plan EIR. By 2000, the alternative forecasts range from 189,000 to 193,000 office workers living in San Francisco. The relative comparisons described above apply to all the alternatives; the percentage of total employed San Franciscans working in C-3 District office jobs would increase while the percentage of C-3 District office jobs held by residents would decline.

The proposed project, if approved, would be developed during this time period; businesses and employees would occupy the building; and, therefore, the project would contribute to the changes described above. The project would add about 232,760 square feet of office space to downtown San Francisco. Over the 1984-2000 period, a net addition of about 16.8 million square feet of office space is forecast for the C-3 District under the Downtown Plan.⁹ (This estimate includes development of new office space and incorporates conversions and demolition of existing space.) The proposed project represents about 1.4% of the total increase in office space in the C-3 District over this period.

The residence patterns of future occupants of the 299 Second Street project can be estimated using information developed in the Downtown Plan analysis. This approach assumes that employment densities for the building and residence patterns for those working in the building would reflect the average conditions for all similar buildings and occupants in the C-3 District in 2000. According to this approach there would be about 372 people employed in the project who would live in San Francisco. The project would account for about 0.2% of all San Franciscans employed in the C-3 District in 2000 under the Downtown Plan forecast.¹⁰

c. Estimates Based on the List of Office Projects in Downtown San Francisco

An alternative means of evaluating the cumulative effects of projects such as the proposed 299 Second Street project is to use the list of all projects that are under construction, approved, or under formal review. (This list is discussed in Appendix C, pp. A-31 to A-44. The list includes projects throughout the greater downtown, which includes the C-3 District as well as adjacent areas.) It is possible to calculate from the list the change in the number of downtown workers living in San Francisco associated with this amount of development. Adding this number to the 1984 base estimate of downtown workers residing in San Francisco produces an estimate of total downtown workers living in the City, once all projects on the list were built and occupied. The results from this

approach indicate that about 230,000 workers in the greater downtown area would live in San Francisco at that time.¹¹

This approach uses the methodology developed for the September 1983 Transportation Guidelines list of cumulative office development prepared by the Department of City Planning. Unlike the Downtown Plan EIR forecast approach, this approach incorporates no changes over time in either employment densities or residence patterns. It assumes that current average conditions (reflected in the Transportation Guidelines) would continue throughout the build-out period for the list. Using the list approach, approximately 418 net new project workers would live in San Francisco (44%); 256 in the East Bay (27%); 152 on the Peninsula (16%); and, 123 in the North Bay (13%).¹² The project would account for about 0.2% of all downtown workers living in San Francisco when all projects on the list were built and occupied.

d. Differences In Cumulative Approaches

There are several important differences between the two approaches to cumulative analysis: the Downtown Plan EIR approach of forecasting space and employment and the approach of using a list of proposed projects. This first approach incorporates forecasts of new development for all land uses (office, retail, hotel, and housing) and accounts for the demolition and conversion of existing space. The second approach accounts for the net addition of office and retail development. Moreover, the Downtown Plan EIR forecast methodology incorporates changes in economic activity and employment that would occur in the use of existing space, while the list includes the changes accommodated by net new construction and some conversions.¹³ The Downtown Plan EIR forecast also includes employment growth, such as building maintenance and construction employment, that is not directly related to the occupancy of space. The Downtown Plan EIR forecast incorporates changes over time in residence patterns, reflecting changes in the regional distribution of population, housing, and employment. The list approach applies relationships derived from current condition to the future situation, assuming no changes over time. The Downtown Plan EIR approach is currently limited to the C-3 District while the list covers a larger geographic area. In addition, there is no definite timeframe associated with the list, while the Downtown Plan EIR forecast represents a best estimate of the development likely to be built and occupied from 1984 to 2000. It is because of

these differences that the cumulative estimates of future residence patterns under each approach are not comparable.

e. Housing Market Implications¹⁴

With continued employment growth, there would be more people with preferences for San Francisco housing and with greater financial resources to pay for housing. This would affect the City's housing market.

At a minimum, continued office employment growth at the levels reflected by the Downtown Plan EIR forecast and the cumulative list would contribute to keeping prices and rents at their current levels (in constant dollars). Depending on the future of other factors (such as interest rates and the availability of mortgage money), employment growth could contribute to a future situation where prices and rents are moderately higher, on average, than current levels.

Higher prices/rents for San Francisco housing would mean that some people would decide not to move to San Francisco, current residents who rent would find it more difficult to buy a home, and some existing residents would move out of the City if they find more acceptable housing elsewhere. Many others would continue to live in San Francisco and to pay higher prices/rents for City housing. Still others, who are unable to pay more, would be forced to accept housing that does not meet their preferences or needs. And finally, owners of existing units would benefit to the extent that their investments would appreciate.

The proposed project, as part of the future pattern of downtown office development, would contribute to these housing market impacts. The project's individual contribution cannot be separately identified.

f. Regional Perspective on Residence Patterns and Housing

The residence patterns of San Francisco workers can also be considered from a regional perspective. As discussed in Residence Patterns and Housing, pp. 157-159, the Downtown Plan 1984 estimates and forecasts for the year 2000 indicate that the largest number of

C-3 District workers would live in San Francisco (50%), followed by the East Bay (29%), the Peninsula (13%), and the North Bay (8%).¹⁵

In terms of the region's housing market, downtown office development and employment growth would not, by themselves, make a noticeable difference in the housing markets in other Bay Area counties or in the region overall. C-3 District workers would represent a relatively large share of all employed San Franciscans and a relatively smaller proportion of the labor force in other Bay Area counties. As a part of total regional employment growth to the year 2000, however, increases in San Francisco office employment can be viewed as contributing to regional housing demand. A strong regional economy has and will continue to be a factor supporting a competitive regional housing market with relatively high housing prices and rents.

¹ Office employment derived from San Francisco Department of City Planning, Guidelines for Environmental Review, page 14. Retail and maintenance employment derived from analysis in 101 Montgomery Street, FEIR, certified May 7, 1981, page 77.

² All multipliers based on the Association of Bay Area Governments Study, 1980 Hybrid Input - Output Model for the San Francisco Bay Region, April 1984, page XIV. The multipliers used in the analysis are Type II, which includes indirect and induced employment generation, and should be viewed as the theoretical maximum impact level. Actual employment generation would probably be somewhat less.

³ An estimated \$21,920,000 (1984 dollars) would be spent during construction. Employment estimates assume labor costs would be about 55% of the total $\$21,920,000 \times 55\% = \$12,056,000$ including direct wages, payroll taxes and fringe benefits, and annual cost of \$36,400 per construction worker.

⁴ This calculation is derived from the formula in Section 313(d) of the Planning Code (net square feet of additional office space) $\times 0.000386 =$ Housing Units. The fee payment, at Section 313(f), would be determined by multiplying $\$5.34 \times$ (net new square feet office space). For the 299 Second Street project, there would be 232,760 square feet of new office space. The 0.000386 factor is derived from a report entitled, 'The Economic Basis for an Office Housing Production Program in San Francisco,' prepared for the Department of City Planning by Recht Hausrath & Associates, dated July 19, 1984. The factor represents the consultants' determination that there will be 386 additional San Francisco households per addition of 1 million square feet of C-3 District office space from 1981-2000.

⁵ The City Planning Code at Section 313(f), permits the payment of in lieu fees equal to $\$5.34 \times$ (net new square feet office space).

⁶ Department of City Planning, Downtown Plan EIR, EE81.3, certified October 18, 1984, pages IV.B.17-IV.B.31 and Appendix G, pages G.37-G.41.

⁷ For a description of the methodology used to forecast residence patterns, see Appendix I, Downtown Plan EIR, EE81.3, certified October 18, 1984, pages I.8 - I.30. For a description of existing and forecast future residence patterns of C-3 District workers, see Downtown Plan EIR, Section IV.D, Residence Patterns and Housing. Appendix I and Section IV.D of the Downtown Plan EIR are hereby incorporated by reference into this EIR pursuant to Section 15150 of the CEQA Guidelines.

⁸ Downtown Plan EIR, page I.36.

Only the forecasts of residence patterns for C-3 District office workers are described here. The Downtown Plan EIR presents residence patterns for all C-3 District workers, of which office workers represent the largest group.

The forecasts presented here are for all C-3 District office employment, including management/technical and trade/customer service office activities.

⁹ Downtown Plan EIR, page IV.B.34.

¹⁰ In order to ensure consistency with the cumulative transportation analysis and to provide information on region-wide impacts, this section does not use the OAHPP and 101 Montgomery formulas for estimating the number of workers who would live in San Francisco. These formulas only provide estimates of office workers living in San Francisco; they do not include factors for estimating workers living in other parts of the region.

¹¹ For the 1984 estimates of workers in the greater downtown area, the C-3 District estimates of employment and residence patterns prepared for the Downtown Plan EIR were used as a base to which order-of-magnitude estimates for that year for the other downtown areas were added. The September 1983 Transportation Guidelines, prepared by the Department of City Planning, were used to estimate employment and residence patterns for projects on the March 10, 1984 list for the greater downtown area. The workers associated with these new projects were added to the 1984 base year total estimate.

¹² See Transportation Guidelines, pp. 28 and 30 for maps of the Cumulative Development Study Area and the South of Market/Folsom area.

¹³ As explained in the Downtown Plan EIR, the use of existing space is expected to intensify by the year 2000. For example, office employment growth is forecast to exceed the

growth of employment that would be accommodated by the development of new office space. From 1990 to 2000, more intensified use of existing space would be equivalent to about a 40% increase in the net addition of office space forecast for that period. (See p. IV.B.41 in Downtown Plan EIR.)

¹⁴ This subsection presents a summary of the discussion in the Downtown Plan EIR. (See pages IV.D.77-IV.D.82.)

¹⁵ For a description of the residence patterns forecast methodology, see the Downtown Plan EIR, Appendix I, pp. I.8-I.30.

J. NOISE

1. Construction Noise Impacts

To assess noise levels at the project site, 1981 noise measurements made at the locations on Figure 31, page 147, were reviewed. The first location is representative of the noise exposure of buildings facing Second and Harrison Streets; the second location, the noise exposure of the proposed buildings facing Second and Folsom Streets. The data obtained during the measurements are summarized in Table 15, page 148.

Construction of the 299 Second Street office building would take place in three phases: demolition and excavation (about two months duration), foundation construction (about two months duration), and building erection (about 14 months duration). Construction noise levels would fluctuate depending upon the following variables: the construction phase, phase duration, the type or types of equipment used during each phase, the noise emitted during the noisy mode of any particular item or items of equipment in use, the number of hours in a day the equipment would be operated in this noisy mode, equipment mobility (e.g., the noise source may be a stationary air compressor or a self-propelled backhoe), the distance between the noise source and the receptor, and the noise propagation characteristics of the path between the noise source and the receptor (e.g., shielding by barriers or intervening buildings will result in a reduced noise level at the receptor). The worst-case noise impacts associated with the various phases of construction have been estimated for this study.

During the two-month excavation phase, bulldozers, graders, haul trucks and front-end loaders would be expected on the project site. These pieces of equipment generate from 70 to 85 dBA at 50 feet. During the two-month foundation construction phase, the major noise source would be concrete-pumping trucks. These trucks generate noise levels of up to 85 dBA at 50 feet. After foundation construction, major noise sources during the building erection phase would be concrete pumpers, power saws, cranes, air compressors, generators, and impact torque wrenches. These pieces of equipment emit from 70 to 95 dBA at 50 feet. This portion of the building erection phase would last through the first year of construction. Noise from impact wrenches, used intermittently during the framing of buildings, has been measured¹ at construction projects in downtown San Francisco at up to 95 dBA at 50 feet.

NOISE MEASUREMENT LOCATIONS

FIGURE 31

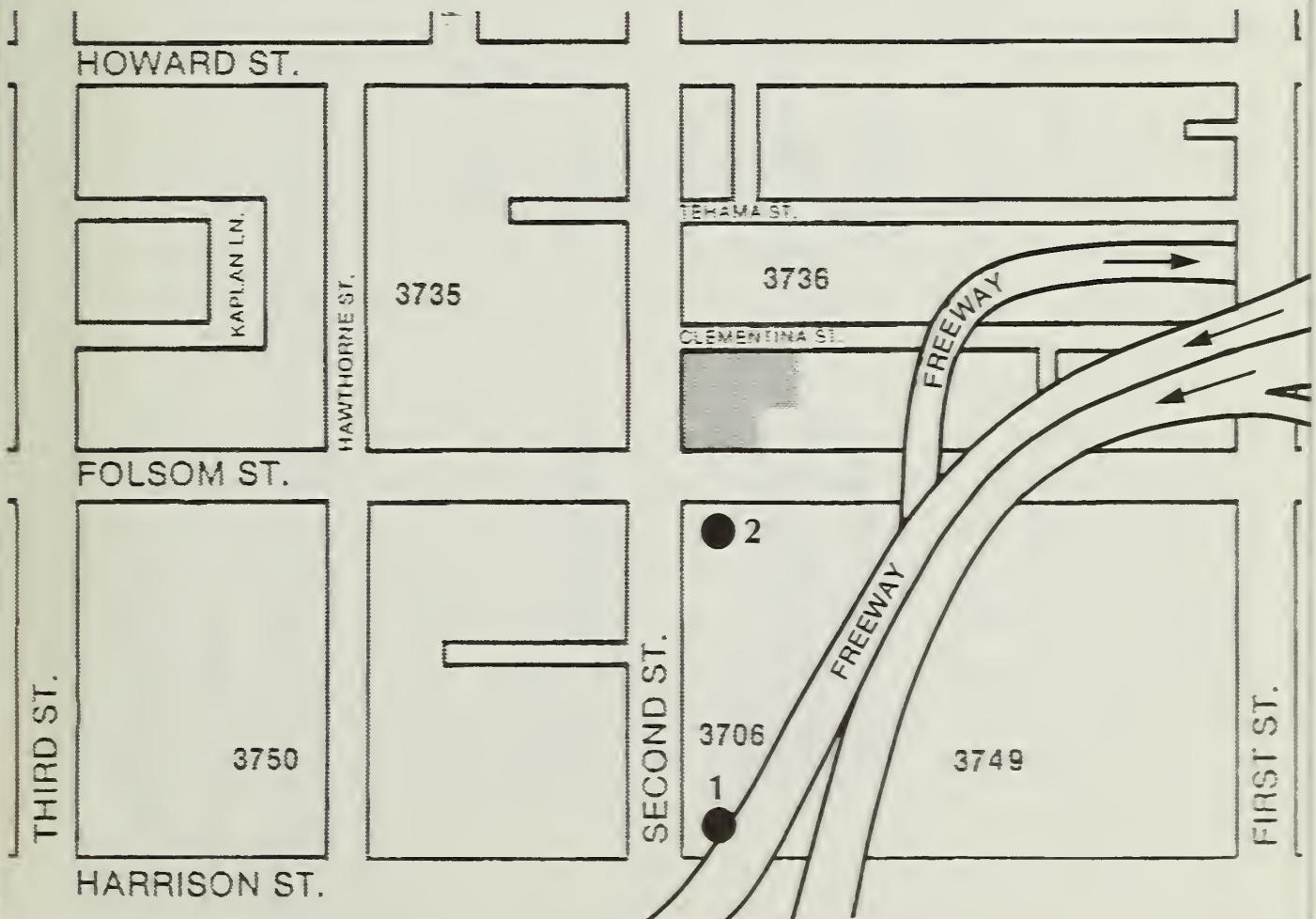
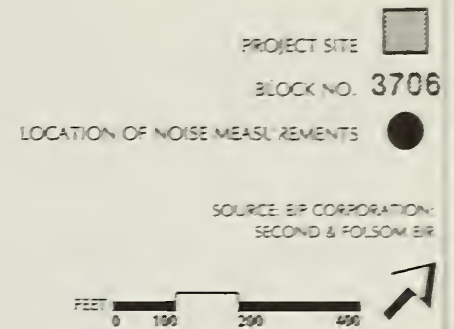


TABLE 15
RESULTS OF ON-SITE NOISE MEASUREMENTS

Site No.	Location (see Figure 30)	Day and Time of Measurement	L_{eq}^1	L_{max}^2	Comments
1	25 feet from edge of Second St. and 25 feet from edge of Harrison St.	12 May 1981 10:21-10:26 a.m.	72	88	Freeway is background; peaks due to buses, trucks
		12 May 1981 4:30-4:45 a.m.	72	84	Local traffic is dominant
2	25 feet from edge of Second St. and 25 feet from edge of Folsom St.	12 May 1981 10:30-10:35 a.m.	73	87	Freeway at 63-64 dBA; local traffic is dominant
		12 May 1981 3:30-3:45 p.m.	72	85	Local traffic is dominant

¹The L_{eq} is the equivalent steady-state sound level, in dBA, which, in a given period of time, would contain the same acoustic energy as the time-varying sound level during that same time period.

²The maximum instantaneous sound level, in dBA, observed during this sample period.

Source: Charles M. Salter Associates, Inc.

During the use of impact wrenches (approximately 8 months) the noisiest construction operation, noise levels outside both the Pacific Bell and new office buildings would reach as high as 89 dBA. Maximum noise levels inside the building would be expected to reach about 59 dBA in offices with windows. Pacific Bell does not anticipate any problems at the wire center from construction noise or vibration.²

Impact wrench noise would be noticeable (up to 5 dBA over present maximum levels) inside the affected offices and could annoy and distract office workers. The noise of impact wrenches would not interfere with ordinary use of the telephone by these workers.

If windows were opened, the expected exterior/interior noise reduction in the Victorian office building across Second Street from the project site would be approximately 15 dBA. Maximum noise levels inside the buildings during impact wrench use would be expected to reach about 74 dBA. The noise inside these buildings could be expected to annoy and distract office workers and residents. They would have to raise their voices to converse and telephone use would be difficult.

During the remainder of construction, noise levels would not be expected to exceed 65 dBA in the adjacent Folsom Street buildings or 50 dBA inside the Second Street offices fitted with windows. At these noise levels, construction noise would be audible and could interfere with communications in the Folsom Street buildings, but would not be expected to interfere with activities in the Second Street offices.

Noise levels in the interiors of the residences on Folsom Street immediately north of the project site could reach 80-85 dBA during impact wrench use. With windows closed, noise would be about 10 dBA lower. These levels would be irritating to residents. No other residential uses were identified within the impact area of the project. This area is estimated to include locations within 800 feet of the project, based upon a project-generated noise source of 95 dBA, and an attenuation rate of 6 dBA for each doubling of distance.¹ The attenuation rate is applicable to line-of-sight; since there is much shielding in this area, the estimate of the impacted area is quite conservative.

2. Compatibility with the Existing Noise Environment

The Transportation Noise Plan of the Comprehensive Plan of the City and County of San Francisco³ and Title 25 of the California Administrative Code⁴ contain guidelines for determining the compatibility of various land uses with respect to outdoor noise environments. With regard to new office and commercial buildings, in an exterior noise environment of 70-75 dBA, an analysis of the noise reduction requirements must be made and needed noise insulation features included in the design.

Since nighttime noise control is not important in office buildings, the L_{eq} (defined in Table 15, page 148) during the noisiest daytime hours is the appropriate design parameter. The L_{dn} (day-night average noise level) is equivalent to the L_{eq} during the noisiest daytime hours in noise environments dominated by traffic noise.

An L_{eq} of 45 dBA is considered the upper limit of acceptability for traffic noise in a private or semiprivate office or small conference room where good listening conditions are desired. The L_{dn} inside the proposed offices would be approximately 42 dBA (the L_{eq} inside the office facing Folsom Street), which would be compatible with office uses.⁵ The predicted instantaneous maximum levels of up to 58 dBA could interrupt a speaker talking in a normal tone of voice in a small conference room.⁵

Based upon previously collected area data, the maximum noise exposure for the proposed building would be an L_{dn} of about 72 dBA at ground level (see Table 15, page 148). It is therefore required that an analysis of noise reduction and noise insulation features be conducted by a qualified noise consultant prior to the application for the building permit in order to identify design measures that would result in an acceptably quiet indoor environment. With fixed windows, the resulting noise levels in exterior offices would fall below 45 dBA, and would therefore be acceptable.

3. Noise Impacts on Adjacent Land Uses

Post-construction operation of the 299 Second Street office building could affect the existing acoustic environment in the area in three ways: by generating additional traffic in the vicinity, contributing to an increase in overall traffic noise levels, and adding the building's mechanical equipment noise to the existing noise environment.

Traffic generated by the project during any hour of the day would cause noise levels to increase by less than 1 dBA on any of the adjacent streets. A 1 dBA increase in the usual urban environmental noise is undetectable to the human ear.

Although the mechanical equipment to be used at the proposed building has not yet been chosen, the amount of noise that may be emitted by this equipment is regulated by San Francisco's noise ordinance.⁶ The noise ordinance requires that noise from mechanical equipment at the proposed building not exceed 60 dBA at the property line of the property affected by the noise emission. This level would be at or below the existing background noise level in the site's vicinity; no increase in noise levels due to mechanical equipment would be expected.

¹ Charles M. Salter Associates, San Francisco, California, unpublished data, 1979.

² Lou Meylan, Engineering Manager, Pacific Bell, telephone communication, May 31, 1984.

³ City and County of San Francisco, Department of City Planning, Plan for Transportation Noise Control, a section of the Environmental Protection Element, adopted September 19, 1974.

⁴ Title 25, California Administrative Code, Section 725-28, e-2.

⁵ Data based on noise analysis prepared for Second and Folsom Project FEIR (EE81.18) on pages 90-97.

⁶ City and County of San Francisco, Ordinance 274-72, Regulation of Noise, Section 2907.

The ordinance requires that all powered construction equipment, except impact tools and equipment, emit not more than 80 dBA measured at 100 feet (86 dBA at 50 feet). Impact tools and equipment, including pavement breakers and jackhammers, must have both intake and exhaust muffled to the satisfaction of the Director of Public Works. The ordinance further requires a special permit for construction after 8:00 p.m. and before 7:00 a.m.

K. FIRE PROTECTION SERVICES

The proposed project would contribute to the cumulative demand for fire protection services in the downtown area. Said impacts have been analyzed in the Downtown Plan EIR,¹ and are summarized below.

An estimated 21% (7,600) of the City's 36,000 annual fire and non-fire incidents occur in the C-3 District. The number of annual incidents in the C-3 District is expected to increase to approximately 7,800 by the year 2000. The majority of this increase in yearly incidents would be non-fire incidents (e.g., first aid calls, false alarms). The increase in fire incidents from 1984 to 2000 would be less than 1% due to the effectiveness of the San Francisco and State Life Safety code provisions.

Based on these projections, all Fire Department task units would continue to operate within their annual service limits through the year 2000. The Fire Department anticipates that no new equipment or specialized staff would be needed to meet the demands identified. Two additional building inspectors would be required to maintain annual inspection of all downtown highrises.

¹Downtown Plan EIR (EE81.3, certified Oct. 18, 1984) at Sections IV.F.6-IV.F.8; IV.F.15-IV.F.19; Comment and Responses, p. F.6; Appendices pp. A-6 and K.10-K.13, which are incorporated by reference herein.

L. GROWTH INDUCEMENT

The project would consist of approximately 267,760 gross square feet (gsf) of office space, 5,580 gsf of restaurant space, 10,000 gsf of retail space, and about 45,735 gsf of parking space, a net gain of approximately 232,760 gsf of office space, 3,630 gsf of restaurant space and 10,000 gsf of retail space.

At full operation, the project would provide about 949 net new permanent jobs, including office, managerial, retail, restaurant and maintenance positions. To the extent that the building is fully leased and the availability of its space does not create permanent vacancies in other Bay Area office buildings, total employment in the Bay Area could increase by another 3,644 permanent jobs through the multiplier effect.

The project would not require new construction or extension of public services or utility systems, and would be built in an already developed urban area. The influx of employees could stimulate employee-oriented retail activity in the proposed project and the project area.

The project's net office space would provide 1.4% additional office space to downtown San Francisco over the period 1984-2000. To the extent that the project would attract new residents or commuters who otherwise would not have been attracted to San Francisco or the Bay Area, the demand for housing and commercial, social and municipal services would be increased. The project would generate a demand for an estimated 207 housing units in San Francisco. Additional demand for housing in the region may also occur. However, the specific locations selected by potential employees working in San Francisco cannot be predicted.

If marketed successfully, the proposed project, together with other planned office/retail development, could have growth-inducing effects by demonstrating a market for office and retail space in this area, thereby stimulating further revitalization of office and retail growth in the South of Market area, and in the Rincon Hill area in particular. This growth could be in response to an increasing demand for office space located in San Francisco's Financial District. This demand would exist whether or not the project is built. As indicated in a report prepared by Coldwell Banker on office vacancies in the downtown areas of 22 U.S. cities, San Francisco's office vacancy rate remains below the national

average.¹ San Francisco's demand for office space continues the trend of growth in the service sector and in office headquarters activities and employment. The increase in downtown office space would contribute to the continued growth of local and regional markets for housing, goods and services.

¹Coldwell Banker, Office Vacancy Index of the United States, September 30, 1984.

V. MITIGATION MEASURES THAT WOULD MINIMIZE THE PROJECT'S POTENTIAL IMPACTS

In the course of project planning and design, measures have been identified that would reduce or eliminate potential environmental impacts of the proposed project. Some of these measures have been or would be adopted and implemented by the project sponsor, project architects or contractors and, thus, are proposed as part of the project. Some measures are under consideration and others have been rejected. Implementation of some measures may be the responsibility of public agencies.

A. ARCHITECTURAL AND HISTORIC RESOURCES

MITIGATION MEASURE INCLUDED AS PART OF PROJECT

- The sponsor would retain the services of a qualified historical archaeologist. The Environmental Review Officer (ERO) in consultation with the President of the Landmarks Preservation Advisory Board (LPAB) and the archaeologist would determine whether the archaeologist should instruct all excavation and foundation crews on the project site of the potential for discovery of cultural and historic artifacts, and the procedures to be followed if such artifacts are uncovered.
- Should evidence of cultural or historic artifacts of significance be found during project excavation, excavation which could damage such artifacts would be halted. The archaeologist would assess the significance of the find and whether feasible measures, including appropriate security measures, could be implemented to preserve or recover such artifacts, and immediately report to the ERO and the President of the LPAB. The ERO would then recommend specific mitigation measures, if necessary.
- Copies of reports prepared according to this mitigation measure would be sent to the California Archaeological Site Survey Office at Sonoma State University. Excavation or

- construction that might damage the discovered cultural resources would be suspended for a maximum of four weeks (cumulatively for all instances that the ERO has required a delay in excavation or construction) to permit inspection, recommendation and retrieval, if appropriate.

B. TRANSPORTATION

MITIGATION MEASURES INCLUDED AS PART OF PROJECT

- o Within a year of the project's full occupancy, the project sponsor would conduct a survey, in accordance with methodology approved by the Department of City Planning, to assess actual trip generation patterns of project occupants and

actual pick-up and drop-off areas for carpools and vanpools. The project sponsor would make this survey available to the Department. This measure would provide needed information to aid in transportation planning within the City. Alternatively, at the request of the Department, the sponsor would provide a fair and equitable in-lieu contribution toward an overall transportation survey for the downtown area to be conducted by the City.

- o During the construction period, construction truck movement would be permitted only between 9:00 a.m. and 4:00 p.m. to minimize peak-hour traffic conflicts. The project sponsor and construction contractor would meet with the Traffic Engineering Division of the Bureau of Engineering of the Department of Public Works, the Fire Department, Muni and the Department of City Planning to determine feasible traffic mitigation measures to reduce traffic congestion during construction of this project and other nearby projects.
- o To minimize cumulative traffic impacts due to lane closures and street excavation during construction, the project sponsor would coordinate with construction contractors for any concurrent nearby projects that are under construction, planned for construction, or later become known.
- o Building directories and signs for the service elevators would be placed in the loading area.
- o Secure, safe bicycle storage facilities would be provided relative to the demand generated by the project for commuters and short-term visitors, if demand for such storage facilities is greater than the number required by code.
- o The placement of paving, landscaping or structures in the sidewalk area (subject to City approval) would be done in such a way as to minimize interference with pedestrian traffic.
- o Off-street parking spaces would be controlled to assure priority for vanpool and carpool vehicles and vehicles driven by the physically handicapped. All remaining parking spaces would be subject to rates that encourage an appropriate mix of long- and short-term use of said spaces.
- o The sponsor would be required to pay a one-time Transit Impact Fee to finance the increased cost of Muni services necessitated by the project, at the rate of \$5 per gross square foot of new construction. Based on the \$5 rate, the project would yield about \$1,163,800.
- o The project sponsor would, in consultation with the Municipal Railway, install eyebolts or make provisions for direct attachment of eyebolts for Muni trolley wires on the proposed building wherever necessary or agree to waive the right to refuse the attachment of eyebolts to the proposed building if such attachment is done at City expense. (Public Utilities Commission Resolution No. 81-0093).

MITIGATION MEASURE NOT INCLUDED IN THE PROJECT

- o Pacific Gas and Electric Company would coordinate work schedules with other utilities requiring trenching, so that street disruption would take place during weekends and off-peak hours. This would be done through the San Francisco

Committee for Utility Liaison on Construction and Other Projects (CULCOP). This measure is outside the jurisdiction of the sponsor and would be implemented by CULCOP.

C. AIR QUALITY

MITIGATION MEASURES INCLUDED AS PART OF PROJECT

- o Measures to reduce traffic volumes or congestion would also reduce air pollutant emissions. These include encouragement of transit use by employees; flexible work hours; and preferential parking for carpools, vanpools and bicycles. Also, construction vehicle traffic would be prohibited during peak traffic hours.
- o The California Health and Safety Code requires that demolition materials and soils be watered to minimize dust generation. An effective watering program (complete coverage twice daily) can reduce emissions by about 50%. The project sponsor would require the contractor to implement a twice-daily watering program, which would reduce airborne construction dust and particulates by about 50% and reduce the likelihood of exceeding the state and federal standards.

D. NOISE

MITIGATION MEASURES INCLUDED AS PART OF PROJECT

- o Techniques that would be incorporated to minimize construction noise impacts include: locating fixed noise sources, such as concrete pumpers, portable air compressors, portable generators, and pumps as far as possible from existing land uses, particularly office buildings and residences; and erecting noise barriers around sidewalks and in pit areas where possible. A solid 8-to-10-foot plywood fence would be erected around the construction perimeter to reduce the project's impact on ground-level noise in the area.
- o The sponsor would notify all offices and residents within 100 feet of the project of the times and days of construction activity. This would allow businesses and individuals, to the extent necessary and possible, to adjust their schedules around the construction activity.
- o If significant noise problems are identified by the residents of the six-unit building on Folsom Street, east of the site, temporary noise shields could be placed over windows of residential units.
- o An acoustical analysis would be prepared under the supervision of a person experienced in the field of acoustical engineering detailing the reduction requirements of the project. Necessary noise insulation features would be included in the project design. In order to ensure compliance with the Master Plan, a copy of this report would be submitted with the building permit application.

- o The construction contract would specify that the contractor muffle equipment so that noise levels would not exceed the limits stated in the City Noise Ordinance (Article 29, San Francisco Administrative Code, 1972).
- o Both intake and exhaust tools and equipment would be muffled to the satisfaction of the Director of Public Works.

E. ENERGY

MITIGATION MEASURE NOT INCLUDED AS PART OF PROJECT

- o The project sponsor has not reached any formal decisions concerning mitigation measures for energy consumption.

Potential mitigation measures are under consideration as part of the design process and could include, but not necessarily be limited to, the following:

- increased use of daylighting
- passive solar features
- load shedding
- individual fan units on each floor
- parabolic lighting
- high-efficiency ballasts for fluorescent lighting
- high-efficiency motors
- computerized energy management
- fluorescent lighting (wattmisers) using two bulbs per fixture instead of four
- energy-efficient outdoor lighting
- variable air volume space conditioning system.

Final decisions would be made on the basis of life cycle costing and compatibility with the overall design; a separate report would be prepared and made available to the Department of City Planning prior to issuance of the building permit. That report would explain the decisions regarding which energy conservation features would be included in the final design.

G. CLIMATE

MITIGATION MEASURE INCLUDED AS PART OF PROJECT

- o The current design utilizes multiple setbacks and a tapered design, two design features known to generally reduce ground-level wind acceleration.

MITIGATION MEASURE NOT INCLUDED AS PART OF PROJECT

- o Within the outdoor eating area, winds are predicted to range from 2.3 to 6.6 mph depending on the wind direction. Because outdoor eating is particularly sensitive to wind, some additional wind protection in the form of screens, plantings, etc. is advisable to keep winds below 5 mph. The project sponsor has not reached a formal decision concerning this measure.

H. WATER

MITIGATION MEASURE INCLUDED AS PART OF PROJECT

- o During excavation, the project contractor would mechanically sweep streets adjacent to the site to prevent siltation of storm drains. The contractor would construct catchment basins on-site to trap silt and debris for later transport to dumps.

I. HAZARDS

MITIGATION MEASURE INCLUDED AS PART OF PROJECT

- o An evacuation and emergency response plan would be developed by the project sponsor or building management staff, in consultation with the Mayor's Office of Emergency Services, to ensure coordination between the City's emergency planning activities and the project's plan and to provide for building occupants in the event of an emergency. The project's plan would be reviewed by the Office of Emergency Services and implemented by building management insofar as feasible before issuance of final building permits by the Department of Public Works.

J. GEOLOGY/TOPOGRAPHY

MITIGATION MEASURES INCLUDED AS PART OF PROJECT

- o The project sponsor would obtain a site-specific soils report from a California-licensed soils engineer or geologist and construct the project in accordance with the recommendations of that report regarding foundation and structure. Should dewatering be necessary, the final soils and foundation report shall address the potential settlement and subsidence impacts of dewatering of the site. Based upon this discussion the report shall contain a determination as to whether or not a lateral movement and settlement survey should be done to monitor any horizontal or vertical movement of surrounding buildings and adjacent streets. If a monitoring survey is recommended, the Department of Public Works will require that a Special Inspector (as defined in Article 3 of the Building Code) be retained by the project sponsor to perform this monitoring. If, in the judgment of the Special Inspector, unacceptable movement were to occur during dewatering, groundwater recharge would be used to halt this settlement. Costs for the survey and any necessary repairs to service under the street would be borne by the contractor.
- o During excavation, shoring and bracing would be used to reduce soil movements beneath adjacent structures and streets. If necessary, the excavation would be kept dry by sump pumping as required rather than through the use of dewatering wells. This would prevent consolidation of soils supporting adjacent structures and would avoid exposing nearby wooden foundations to dry rot.

VI. SIGNIFICANT ENVIRONMENTAL EFFECTS THAT CANNOT BE AVOIDED IF THE PROJECT IS IMPLEMENTED

No project-specific significant impacts have been identified. Mitigation measures included as part of the project are described in Chapter V., Mitigation Measures, page 155.

Cumulative development in Downtown San Francisco would have a significant effect on the environment in that it would generate cumulative traffic increases as well as cumulative passenger loadings on Muni, BART and other regional transit carriers. These cumulative transportation impacts could cause violations to total suspended particulate (TSP) and localized carbon monoxide (CO) standards in San Francisco with concomitant health effects and reduced visibility. The proposed project would contribute to these cumulative effects.

The chapter is subject to final determination by the City Planning Commission as part of their certification process. Chapter VI. of the Final EIR will be revised, if necessary, to reflect findings of the Commission.

VII. ALTERNATIVES TO THE PROPOSED PROJECT

This chapter identifies alternatives to the proposed project, discusses their environmental impacts, and states the reasons why they were rejected by the sponsor in favor of the project.

A. ALTERNATIVE ONE: NO PROJECT

1. Description

This alternative would involve no change to the project site as it now exists. The two buildings and parking lots would remain in use for an unspecified length of time. This alternative would not preclude future options for development of the site.

2. Impacts

With the retention of the project site in its present state, none of the impacts associated with the proposed 299 Second Street project would occur. The existing wind, shadow, and visual effects of the structures would remain unchanged. The existing transportation and air quality conditions would continue on streets around the site.

The peak-hour level of service on the streets would remain unchanged and Muni load effects would be slightly lower than if the proposed project were implemented. Current levels of parking demand, noise, air pollution, and energy consumption, would not change as a result of the project, but could be subject to cumulative impacts associated with other planned development in the project vicinity.

3. Reasons for Rejection

The project sponsor rejected this alternative because none of the development objectives would be met. The project aponsor also believes that this alternative underutilizes scarce

land resources in an area that supports the downtown area. The site, in the project sponsor's opinion, is a prime location for the project.

B. ALTERNATIVE TWO: MIXED-USE WITH RESIDENTIAL

1. Description

This alternative would consist of a 16-story, 200-foot building constructed on the same lots as the proposed project. Transferable Development Rights (TDRs) would be used. The building would contain open-space amenities similar to those of the project, and conform to appropriate open space provisions of the Planning Code. The exterior design would not differ significantly in color, construction materials or form from the proposed project.

Total gross floor area for this alternative would be 345,500 gsf, including the restaurant/retail and office portions of the project.

Up to 5,000 gsf of each ground-level use (retail/restaurant) not to exceed 75% of general floor uses plus ground floor open space would be excluded in the FAR calculations as specified in the Interim Controls for the C-3-O(SD) district.

Approximate square footages for each use are as follows:

Retail/Restaurant: 8,500 gsf (street/mezzanine levels)

Office: 200,000 gsf (2nd - 11th floors)

Housing: 77,000 gsf (12th floor-penthouse; 154 units at 500 gsf each)

Parking: 60,000 gsf on two basement levels (171 spaces).

Section 215(a) of the Planning Code permits a density of one dwelling unit per 125 square feet of lot area in a "C" (commercial) district. The project site, at 30,890 gsf, would yield a total of 247 units under the maximum allowable density. This alternative represents, in the sponsor's opinion, dwelling units with minimum reasonable floor area, rather than maximum permissible housing density, resulting in a total of 154 units.

Three loading docks and two service vehicle spaces would also be included in this alternative, the same as the project. Parking in excess of 24,185 sq.ft. (7% of the total gross square feet of the project) of the amount permitted under Section 102.8(b)7 of the Planning Code would require Conditional Use authorization, and would be included in the FAR calculation.

This alternative would have 45% less restaurant/retail space, and 25% less office space than the proposed project. The FAR for this alternative would be 10.2:1 (not including that portion of the restaurant/retail square footage permitted for exclusion from the FAR calculation).

2. Impacts

Visual, shadow, wind, architectural and historical, and noise impacts would be about the same as for the proposed project.

This alternative would generate 26% fewer new daily trips and 33% fewer new p.m. peak-hour outbound trips than the proposed project. About 112 of the peak-hour trips would be by auto, 77 on Muni, 72 on BART, 52 on other transit carriers, and 82 by other modes (including walking). The 112 auto trips would increase nearby intersection traffic by 2-3% and would not be measurable within typical daily traffic fluctuations. This alternative would add about 0.1-0.3% to the total projected downtown Muni patronage levels; this increase would not be discernable by Muni patrons. With this alternative, peak-hour BART patronage would increase by about 0.2%, and load factors would not be measurably increased. This alternative's total parking demand would be about 160 spaces, 14 less than the proposed project.

- This alternative would generate 147 units under OAHPP's housing requirement, 60 less than the proposed project. This alternative, by including residential units, would increase
- the housing stock in San Francisco and satisfy the OAHPP requirement by producing 154 units.

Regional air quality impacts would be slightly less than for the proposed project; local air quality would be about the same. Energy consumption would be increased. Employment-related impacts of this alternative would be less than for the proposed project, because

the overall reduction in office gross floor area would provide fewer jobs. At full operation this alternative would provide about 787 permanent jobs, 265 less than the proposed project. These include approximately 727 office workers (at one employee for each 275 gsf of office space), 24 restaurant/retail workers (one per 350 gsf of space), 24 janitorial/service workers (at one per 12,000 gsf of building area), and 12 parking operators (at one per 5,100 gsf of parking).

3. Reasons for Rejection

This alternative was rejected by the project sponsor because it would not meet the objectives of maximizing the site's potential by developing a mixed-use retail and office project. In addition, residential development is proposed as a major component of the plan for the Rincon Hill area, which is located within two blocks east of the project site.

C. ALTERNATIVE THREE: MIXED-USE WITH LIGHT INDUSTRIAL

1. Description

This alternative would consist of a 12-story, 140-foot high building with a total floor area of about 185,160 gsf, with about 30,000 gsf of light industrial space, 155,160 gsf of offices, and 12,960 gsf of parking (7% of the total gross floor area). The FAR would be 6:1. No TDRs would be included in the project. The building's exterior design would be simpler at the lower levels as there would be no arcade, open spaces, or greenhouses. However, like the proposed project, this alternative would contain a penthouse and a peaked-roof design.

Light industrial uses would occupy the Clementina, Second and Folsom Street levels, with offices from the second floor through the penthouse. Light industrial uses would involve final testing and assembly of computer components, as well as research and design facilities. One level of basement parking would also be accessed from Clementina Street. Three loading docks would be included in the design.

2. Impacts

Visual, shadow and wind impacts would be reduced proportionately as the building would be 60 feet shorter than the 200-foot proposed project. Architectural, historical and noise

- impacts would be the same as for the proposed project. Applying the OAHPP formula for computing the housing requirement, this alternative would generate a requirement for 107 housing units, 100 fewer than the 207 calculated for the proposed project.

Eliminating retail/restaurant uses, adding light industry, and reducing office space would generate lower levels of employee-related impacts, traffic generation, parking and transit demand. Air pollution and energy consumption impacts would depend on the specific nature of the light industrial use, but would be expected to be slightly higher than the proposed project due to the increased use of machinery on the project site.

This alternative would generate 65% fewer new daily trips and 55% fewer new p.m. peak-hour outbound trips than the proposed project. About 89 of the peak-hour trips would be by auto, 56 on Muni, 56 on BART and 21 pedestrian trips. The 89 auto trips would increase nearby intersection traffic by 1-2% and would not be measurable within typical daily traffic fluctuations. This alternative's Muni trips would add about 0.1-0.2% to the total projected downtown patronage levels; this increase would not be discernable by Muni patrons. With this alternative, peak-hour BART patronage would increase by about 0.1%. Load factors would not measurably increase. The alternative's total parking demand would be about 100 spaces, about 74 fewer than the proposed project.

3. Reasons for Rejection

The project sponsor has rejected this alternative because it would not meet the development objectives of providing a mixed-use retail and office building with a proportionate amount of parking. Due to incompatibility of light-industrial uses, this alternative would preclude development of on-site street and mezzanine retail and restaurant uses. Light industrial uses would not be compatible with planned developments or developments currently under construction in the project vicinity. This alternative was also rejected because office lease rates would have to be increased to support the light industrial uses, thereby reducing marketability of office space.

D. ALTERNATIVE FOUR: NO EXCEPTIONS TO THE DOWNTOWN PLAN**1. Description**

- This alternative would consist of a 16-story, 200-foot building with office, restaurant, and ● retail spaces that would respond to the Planning Code to implement the Downtown Plan and feature many of the bulk, setback, design and other building characteristics of the proposed project. No Transferable Development Rights would be used.

- The base FAR for this alternative would be 6:1. Total gross floor area would be 195,340 gsf, with 180,340 gsf of office space, 9,500 gsf of retail, 5,500 gsf of restaurant space and 12,974 gsf of parking (7% of total gross floor area). Ground floor retail and restaurant space totalling 10,000 gsf could be excluded from FAR calculations pursuant to Section ● 102.8(b)13 of the Planning Code.

2. Impacts

- Visual, shadow and wind impacts would be reduced proportionately as the upper portions of the building would be more slender (approximately 46% less gross floor area per floor in floors 4 through 15) than the proposed project. Architectural, historical and noise impacts would be the same as for the proposed project.
- Applying the OAHPP formula for computing the housing requirement, this alternative would generate 120 housing units, 87 fewer than the 207 calculated for the proposed project.

This alternative would generate 27% fewer new daily trips and 29% fewer new p.m. peak-hour outbound trips than the proposed project. About 91 of the peak-hour trips would be by auto, 63 on Muni, 60 on BART, 41 on other transit carriers and 79 by other modes (including walking). The 91 auto trips would increase nearby intersection traffic by about 2% and would not be measurable within typical daily traffic fluctuations. This alternative would add about 0.1-0.3% to the total projected downtown Muni patronage levels; this increase would not be discernable by Muni patrons. With this alternative, peak-hour BART patronage would increase by about 0.1%, and load factors would not be measurably

increased. This alternative's total parking demand would be about 122 spaces, 52 less than the proposed project.

Regional air quality impacts would be slightly less than for the proposed project; local air quality would be about the same. Energy consumption would be decreased. Employment-related impacts of this alternative would be less than for the proposed project, because the overall reduction in office gross floor area would provide fewer jobs. At full operation, this alternative would provide about 717 permanent jobs, 336 less than the proposed project. These include approximately 656 office workers (at one employee for each 275 gsf of office space), 43 restaurant/retail workers (one per 350 gsf of space), 15 janitorial/service workers (at one per 12,000 gsf of building area), and 3 parking operators (at one per 5,100 gsf of parking).

3. Reasons for Rejection

This alternative was rejected by the project sponsor because it would not meet the objectives of maximizing the site's potential by developing a first-class mixed-use retail and office project through the use of Transferable Development Rights. In the sponsor's opinion, use of TDRs to allow additional office space would be the only economically feasible way to provide ground floor uses and other amenities that are typical of first-class mixed-use projects.

● E. ALTERNATIVE FIVE: PRESERVATION OF THE EXISTING BUILDINGS.

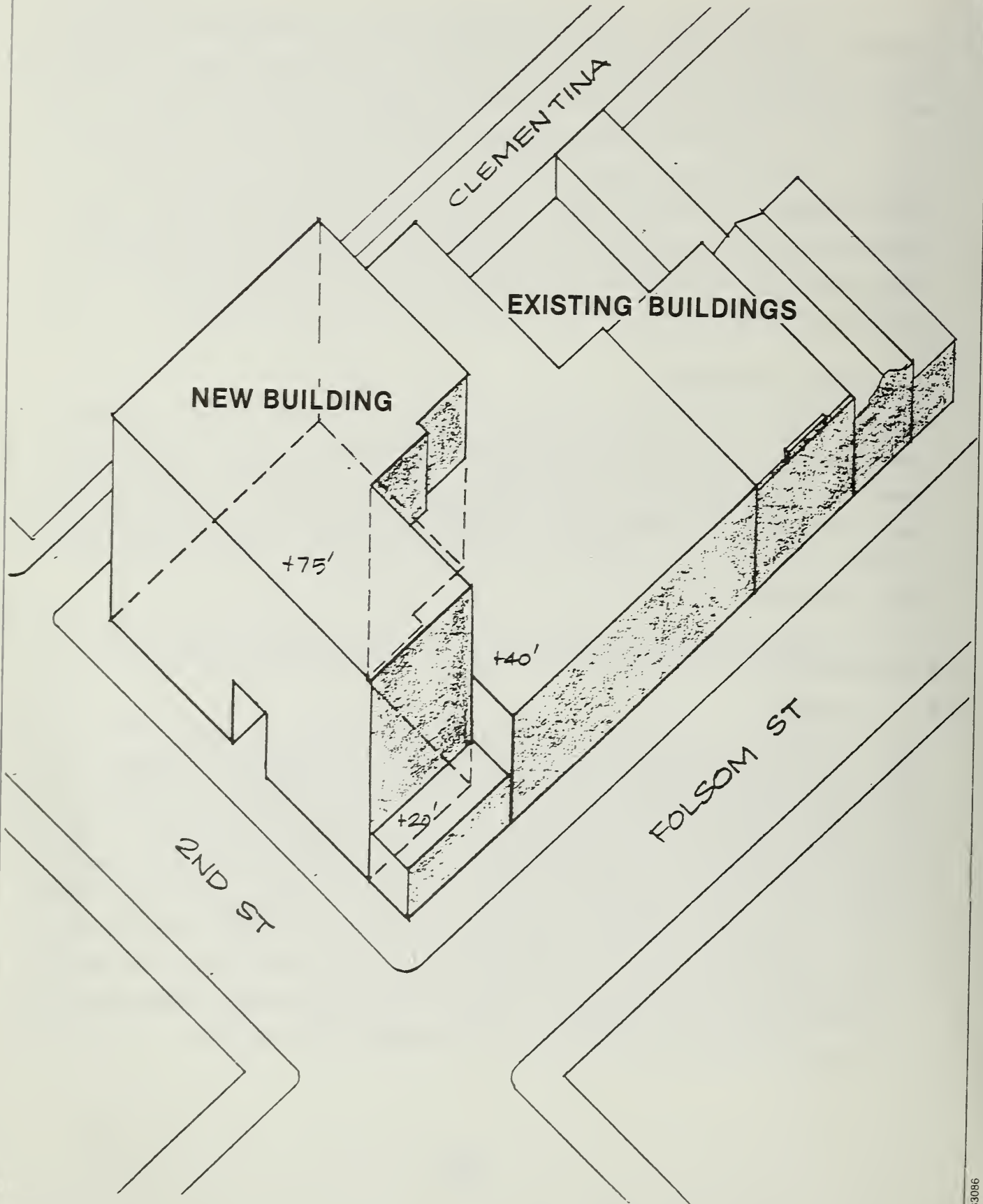
● 1. Description

This alternative would retain the existing buildings on the site and locate a new building on the site of the existing parking lots (Figure 32, page 168a [page 272 of this document]). The existing buildings (590 Folsom Street, Lot 27 and 299 Second Street, Lot 29) contain a total of approximately 35,000 gsf of office space and 1,950 gsf of restaurant. The new building would have a site area of about 11,025 square feet and occupy a roughly "L-shaped" area. The new building would be a six-story, 75'-foot tall office/retail structure with no setbacks. This alternative would contain a total of 66,150 gsf, of which 11,025 gsf would be ground-floor retail uses and 55,125 gsf would be office space. One basement level would contain 74 parking spaces, the same as contained in the existing surface lots. The FAR would be 6:1 and no TDRs would be included in this alternative. The building's

ALTERNATIVE FIVE: PRESERVATION OF THE EXISTING BUILDINGS

FIGURE 32 ●

SOURCE: KAPLAN/McLAUGHLIN/DIAZ
NOT TO SCALE



exterior design, like Alternative Three, would be simpler as there would be no arcade, or greenhouses. Unlike Alternative Three and the proposed project, Alternative Five would have no setbacks, peaked-roof design or penthouse. The base of the building would rise straight to the roof, which would be flat. 1,003 square feet of open space is required by the Downtown Plan. The project sponsor would provide this open space off-site at a location that is as yet undetermined.

2. Impacts

Visual, shadow and wind impacts would be reduced proportionately as the building would be 125 feet shorter than the 200-foot proposed project. At 75 feet, this alternative would be more compatible with the older, low- and mid-rise groups of buildings in the immediate area. This alternative would generate 72% fewer trips than the project. Noise, air quality and energy impacts would also be proportionately less. Construction noise impacts would be less than the proposed project due to a shorter construction period and the use of fewer foundation piles.

Applying the OAHPP formula for computing the housing requirement, this alternative would generate a requirement for 49 housing units, 41 fewer than the 90 calculated for the proposed project. The present employees of the two existing buildings would not be displaced by new construction. This alternative would generate about 238 permanent jobs for office, retail and janitorial/service functions.

This alternative would generate about 20% of the transportation impacts projected by the proposed project. Peak-hour auto trips would not be measurable within typical daily traffic fluctuations. Increased transit trips on Muni and other regional carriers would not be discernible. This alternative would remove the 74 surface parking spaces that now exist, and provide 74 spaces below-grade. Parking demand would be less than 50 short- and long-term spaces. This alternative would provide two freight loading spaces, as required by Code, accessible from Clementina Street.

This alternative would preserve two Heritage "C"-rated buildings. A "C" rating indicates that a building is distinguished by its scale, materials, compositional treatment, cornice and other features.

3. Reasons for Rejection

This alternative was rejected by the project sponsor because it would not meet the objectives of maximizing the site's potential, since less than half the allowable area would be used. None of the development objectives of the sponsor, including a reasonable return on investment, would be met.

● F. **ALTERNATIVE SIX: SPONSOR-PREFERRED ALTERNATIVE**

1. Description

This alternative would be similar to the project, but would be somewhat smaller in floor area and not require exceptions to the Planning Code. Specifically, gross floor area (325,365 gsf) would be 1% less than that of the proposed project (329,075 gsf). Total office space of this alternative (265,485 gsf) would also be 1% less than that of the proposed project (267,760 gsf), with a corresponding 1% reduction in net new office space (alternative: 230,485 gsf; proposed project: 232,760 gsf). This alternative would include 4,790 gsf each of retail and restaurant uses, while the proposed project would include 5,580 gsf of restaurant space and 10,000 gsf of retail use. This alternative would also include 4,565 gsf of personal services space (e.g., shoe repair, barber shop), compared to no space devoted to this use in the proposed project. Parking space would remain the same as the project (45,735 gsf).

Both this alternative and the proposed project would utilize TDRs, with the alternative securing 103,559 gsf of TDR credits from the Central YMCA. The FAR for this alternative would be 9.3:1, compared to 9.4:1 for the project.

This alternative would have different bulk dimensions than the proposed project, which are shown below. In particular, upper tower average floor area would be reduced below the maximum allowable average of 12,000 gsf, compared to 12,760 gsf with the project.

	<u>Project</u>	<u>Alternative</u>
Bulk (Planning Code Section 270)		
<u>Lower Tower</u>	from 50'-162.5'	from 50'-160'
Maximum Diagonal	196'	190'
Maximum Length	158'	158'
Max. avg. flr. area =	19,250 gsf	16,675 gsf
<u>Upper Tower</u>	from 162.5'-200'	from 160'-200'
Maximum Diagonal	152'	152'
Maximum Length	133'	130'
Max. avg. flr. size =	12,760 gsf	11,475 gsf
Max. flr. size =	15,700 gsf	14,275 gsf

This alternative would also respond to upper tower volume controls pursuant to Section 270(d)3(B) of the Planning Code by reducing upper tower floor areas to an average of 11,475 gsf, less than the 12,006 gsf permitted for this alternative. The project as originally proposed would not respond to this Code section, and would require Conditional Use authorization.

Although total parking space would remain the same as the project (45,735 gsf), minor differences would occur in its allocation, as follows:

	<u>Project</u>	<u>Alternative</u>
Parking (Planning Code Sections 102.8(b)16, 157,158, 204.5 (c))	- 23,035 gsf (66 spaces) allowed as accessory use	- 22,776 gsf (65 spaces) allowed as accessory use
	- 22,700 gsf (65 spaces) considered as Conditional Use	- 22,959 gsf (66 spaces) considered as Conditional Use

This alternative would satisfy OAHPP requirements by providing 89 units (67 units from sponsor's Park Hill project; 22 units to be acquired from YMCA), one unit less than the proposed project.

This alternative would include payment of \$1,152,425 for the Transit Impact Fee (Ordinance 224-81), compared to \$1,163,800 for the project. Further, this alternative would satisfy the Downtown Park Fund requirement (Section 139(d)) by paying \$460,970 to

the City compared to \$465,520 for the project. Childcare contributions (Section 315(d)) would total \$230,485, compared to \$232,760 for the project. Provision of artwork would total \$219,200, the same as the project.

2. Impacts

This alternative would have 1% less new office space and 52% less retail area, while the restaurant area would be 14% less than that of the proposed project. Additionally, the 4,565 gsf included as personal services use would be a 100% increase in this use area compared to the project. Thus, daily trips would differ slightly as related to office space, and decrease with respect to retail and restaurant space. Due to a slight change in the composition of uses for this alternative compared to the project, and the 1% reduction in floor area compared to the project, trip generation could be expected to be approximately 0.3% more than the project.

Visual, shadow, wind, architectural and historical, regional and local air quality, energy consumption, and noise impacts would be about the same as, or slightly less than, the proposed project.

This alternative would respond to OAHPP guidelines by providing 89 housing units, compared with the 90 units provided with the proposed project. Employment impacts could be expected to remain about the same as the project, netting 949 new permanent jobs for office retail and janitorial functions, and 3,644 net new jobs in the finance, insurance and real estate industries induced by the multiplier effect.

3. Reasons for Acceptance

In the sponsor's opinion, this alternative is preferred because it would achieve the objective of maximizing site potential by developing a first-class mixed-use retail and office project. Furthermore, this alternative would satisfy all Planning Code requirements for development in the C-3-O (SD) zoning district except the Conditional Use authorization required for the 66 parking spaces (22,959 gsf) considered in excess of accessory parking guidelines.

● G. ALTERNATIVE SIX-A: SPONSOR-PREFERRED ALTERNATIVE WITH REVISED PARKING

1. Description

This alternative would be similar to Alternative Six, but would be somewhat smaller in floor area and not require exceptions to the Planning Code, due to the reduction of parking space to 22,776 gsf. Specifically, gross floor area (302,406 gsf) would be 7% less than that of Alternative Six (325,365 gsf). Total office space of this alternative (265,485 gsf) — and corresponding net new office space — would be the same as Alternative Six. This alternative would include 4,790 gsf each of retail and restaurant uses, as well as 4,565 gsf of personal services space (e.g., shoe repair, barber shop), the same as Alternative Six. Parking space would be about 51% less than Alternative Six (alternative: 22,776 gsf; Alternative Six: 45,735 gsf).

Both this alternative and Alternative Six would utilize TDRs, with this alternative securing 80,600 gsf of TDR credits from the Central YMCA, compared to 103,559 gsf for Alternative Six. The FAR for this alternative would be 8.6:1, compared to 9.3:1 for Alternative Six. This alternative would have the same bulk dimensions and upper tower volume controls as Alternative Six.

Total parking space for this alternative would be 22,776 gsf, compared to 45,735 gsf for Alternative Six, as follows:

	<u>Alternative Six</u>	<u>Alternative Six-A</u>
Parking (Planning Code Sections 102.8(b)16, 157,158, 204.5 (c))	- 23,035 gsf (66 spaces) allowed as accessory use	- 22,776 gsf (65 spaces) of short-term, independently accessible space allowed as accessory use
	- 22,700 gsf (65 spaces) considered as Conditional Use	- No excess space that would be considered as a conditional use

This alternative would satisfy OAHPP requirements by providing 89 units (67 units from sponsor's Park Hill project; 22 units to be acquired from YMCA), the same as Alternative Six.

This alternative would include payment of \$1,152,425 for the Transit Impact Fee (Ordinance 224-81), would satisfy the Downtown Park Fund requirement (Section 139(d)) by paying \$460,970 to the City, would satisfy childcare contributions (Section 315(d)) by paying \$230,485 to the City and include provision of artwork totalling \$219,200, the same as Alternative Six.

2. Impacts

This alternative would have the same new office space, retail area, and restaurant area as Alternative Six. Additionally, the 4,565 gsf included as personal services use would be the same as Alternative Six. This alternative, however, would have 51% less parking space than Alternative Six. Daily trip generation would be reduced slightly for this alternative compared to Alternative Six due to slight decreases with respect to employment associated with the parking use.

This alternative would generate an excess parking demand of 161 parking spaces, compared to 95 for Alternative Six, for an increase of about 70%. The Project would respond to the Code provision that 7% of the total gross floor area be allowed as an accessory use. The excess demand for parking space generated by this alternative could be accommodated within a four block radius of the project site, which, as noted at page 110 (IV.F. Environmental Impacts: Transportation), has 11,162 parking spaces which are 87% occupied. Further, this deficit of parking spaces would be part of the 6,000 spaces analyzed as part of the Downtown Plan EIR as noted at page 111 (IV.F. Environmental Impacts: Transportation).

Visual, shadow, wind, architectural and historical, regional and local air quality, energy consumption, and noise impacts would be about the same as, or slightly less than, Alternative Six.

This alternative would respond to OAHPP guidelines by providing 89 housing units, the same as Alternative Six. Employment impacts could be expected to be slightly less than Alternative Six, netting 944 new permanent jobs for office retail and janitorial functions compared to 949 for Alternative Six, and 3,625 net new jobs in the finance, insurance and real estate industries induced by the multiplier effect, compared to 3,644 for Alternative Six.

3. Reasons for Acceptance

In the sponsor's opinion, this alternative is preferred because it would achieve the objective of maximizing site potential by developing a first-class mixed-use retail and office project. Furthermore, this alternative would satisfy all Planning Code requirements for development in the C-3-O (SD) zoning district.

● VIII. SUMMARY OF COMMENTS AND RESPONSES

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I. INTRODUCTION

This document contains summaries of the public comments received on the Draft Environmental Impact Report (DEIR) prepared for the proposed 299 Second Street project and responses to those comments. Also included are staff-initiated text changes and errata.

All substantive verbal comments made at the Draft EIR public hearing before the City Planning Commission on March 21, 1985, and all written comments received during the public review period from February 8, 1985 through April 1, 1985, are presented herein by direct quotation, edited to delete repetitive and nonsubstantive material only.

Comments and responses are grouped by subject matter and arranged by topics corresponding to the Table of Contents in the EIR. Each group of comments is followed by its set of responses; the order of the responses under each topic follows the order of the comments. As the subject matter of one topic may overlap that of other topics, the reader must occasionally refer to more than one group of comments and responses to review all information on a given subject. Where this occurs, cross-references are provided.

Some comments do not pertain to physical environmental issues, but responses are included to provide additional information for use by decision makers.

These comments and responses will be incorporated into the Final EIR as a new chapter. Revisions resulting from comments and responses will be incorporated into the Final EIR, as indicated in the responses.

II. LIST OF PERSONS COMMENTING

A. Persons Commenting at the Public Hearing on the DEIR, March 21, 1985

Susan Bierman
Commissioner, San Francisco
City Planning Commission (CPC)

Georgia Brittan
San Franciscans for Reasonable Growth (SFRG)

B. Persons Commenting in Writing

Georgia Brittan
San Franciscans for Reasonable Growth (SFRG)
Letter of April 1, 1985

J. M. Ellis
California Department of Transportation (CALTRANS)
Letter of March 14, 1985

Jonathan Malone, Secretary
City and County of San Francisco
Landmarks Preservation Advisory Board (LPAB)
Letter of March 12, 1985

Odis Marlow
California Waste Management Board (CWMB)
Letter of February 26, 1985

Scott Shoaf
City and County of San Francisco
Department of Public Works (DPW)
Letter of February 14, 1985

K. L. (Dan) Wong/Peter Straus
San Francisco Municipal Railway (MUNI)
Letter of February 19, 1985

III. COMMENTS AND RESPONSES

A. LAND USE AND ZONING

COMMENT

"Page 31 has a map showing projects in the area, with no numbers, no designation at all, the YBC blocks. I think that those should have some kind of designation telling what will be in each block, because most of it has been approved by development agreements, and I think they ought to be listed." (Susan Bierman, CPC)

RESPONSE

The Cumulative Development Map (Figure 12, page 31 of the DEIR), has been updated to include the YBC projects in the area. In addition, other changes were made due to the change in status of some projects. The revised map is shown on page 173 of this document, and replaces the map on page 31 of the DEIR.

COMMENT

"p. 25, Zoning Districts (Map): It would be helpful to include the zoning for the south side of Folsom Street." (Jonathan Malone, LPAB)

RESPONSE

Figure 10, page 25 of the DEIR, has been revised as shown on page 174 of this document. At present, the area south of Folsom Street and west of the Rincon Hill Plan area is generally within an M-1, (light industrial) District. The revised map replaces the map on page 25 of the EIR. Figure 11, Height and Bulk Districts (page 27 of the EIR), has also been revised to show the South of Market and Rincon Hill planning areas. The revised map appears on page 175 of this document.

CUMULATIVE DEVELOPMENT

FIGURE 12

PROJECTS UNDER REVIEW

- 2ND / MISSION 1
- 524 HOWARD 2
- 299 SECOND STREET 3
- 35 HAWTHORNE 4
- 50 GUY PLACE 5
- YBC SB-2 6
- 2nd/STEVENSON 7
- 535 MISSION 8
- 201 2nd/HOWARD 9

PROJECTS APPROVED

- CENTRAL PLAZA 1
- 75 HAWTHORNE 2
- 600 HARRISON 3
- 642 HARRISON 4
- 49 STEVENSON 5
- MARATHON/SECOND & FOLSOM 6
- 799 MARKET/FOURTH 7
- YBC CB-1 8
- YBC CB-2 9
- YBC EB-2 10
- 100 FIRST (AT MISSION) 11

PROJECTS UNDER CONSTRUCTION

- NEW MONTGOMERY PLACE 1
- 144 SECOND(AT MINNA) 2
- 71 STEVENSON 3
- 90 NEW MONTGOMERY 4
- YBC EB-1 5
- ST. FRANCIS PLACE 6
- YBC PARKING/HOUSING 7

PROJECT SITE

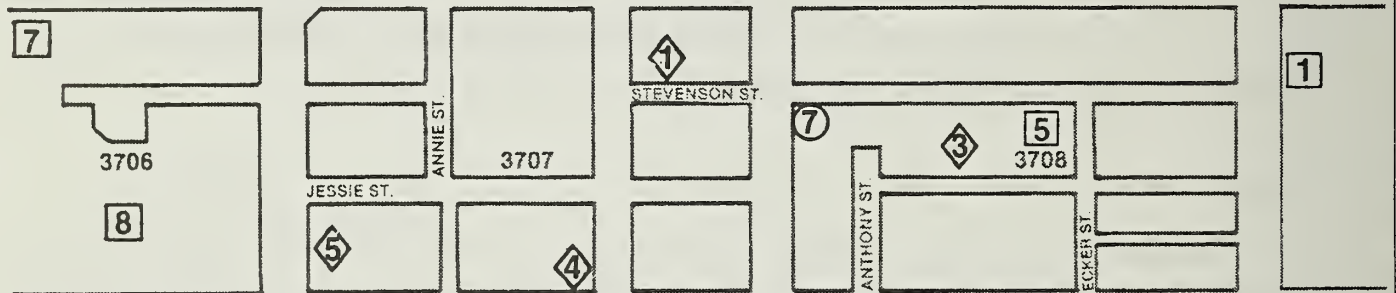
BLOCK NO. 3706

DOWNTOWN PLAN BOUNDARY

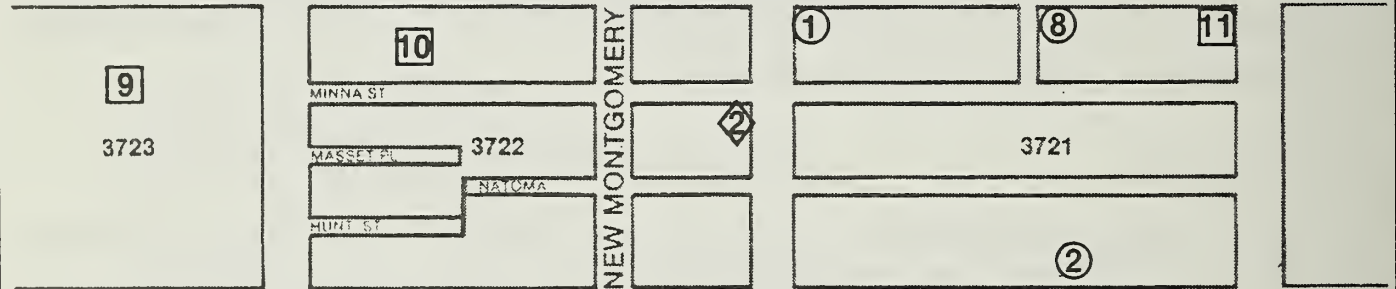
SOURCE: EIP ASSOCIATES / SAN FRANCISCO
DEPARTMENT OF CITY PLANNING, DECEMBER 1, 1985

FEET
0 100 200 400

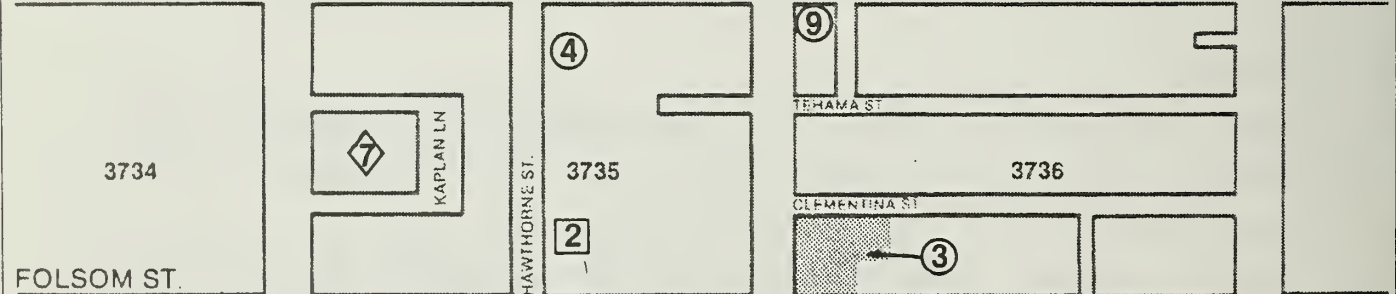
MARKET ST.



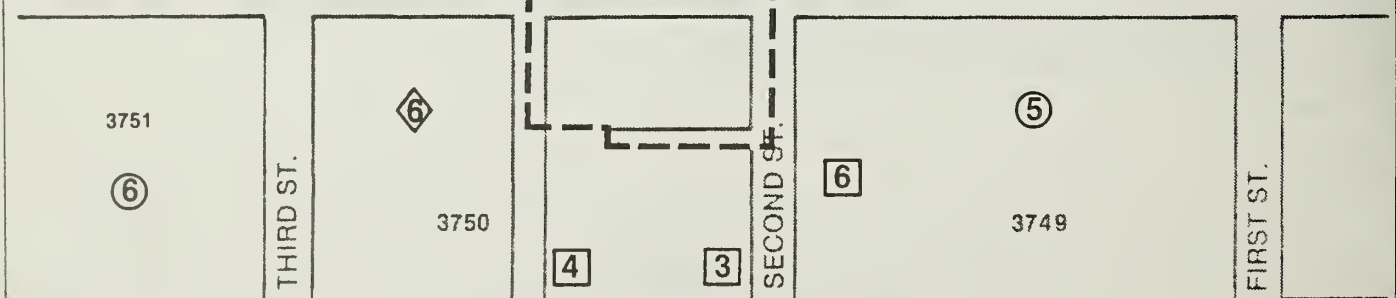
MISSION ST.



HOWARD ST.



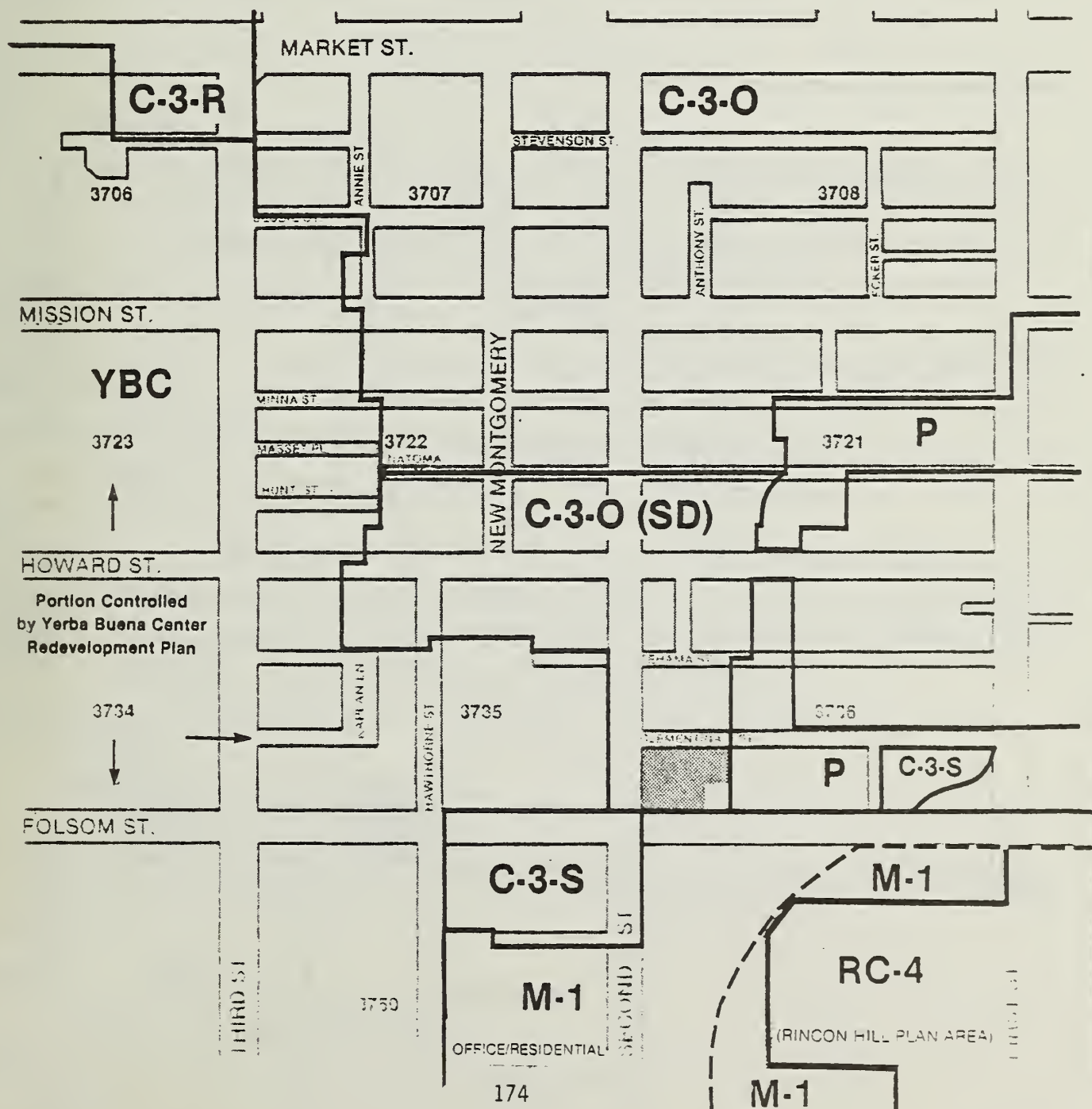
FOLSOM ST.



HARRISON ST.


PROJECT SITE	
BLOCK NO.	3706
COMMERCIAL DISTRICT	C-3-O
COMMERCIAL DISTRICT (SPECIAL DEVELOPMENT)	C-3-O (SD)
COMMERCIAL DISTRICT	C-3-R
COMMERCIAL DISTRICT	C-3-S
INDUSTRIAL DISTRICT	M-1
PUBLIC DISTRICT	P
HIGH DENSITY RESIDENTIAL/COMMERCIAL	RC-4
SOURCE: SAN FRANCISCO PLANNING CODE	

FEET
0 100 200 400



HEIGHT AND BULK DISTRICTS

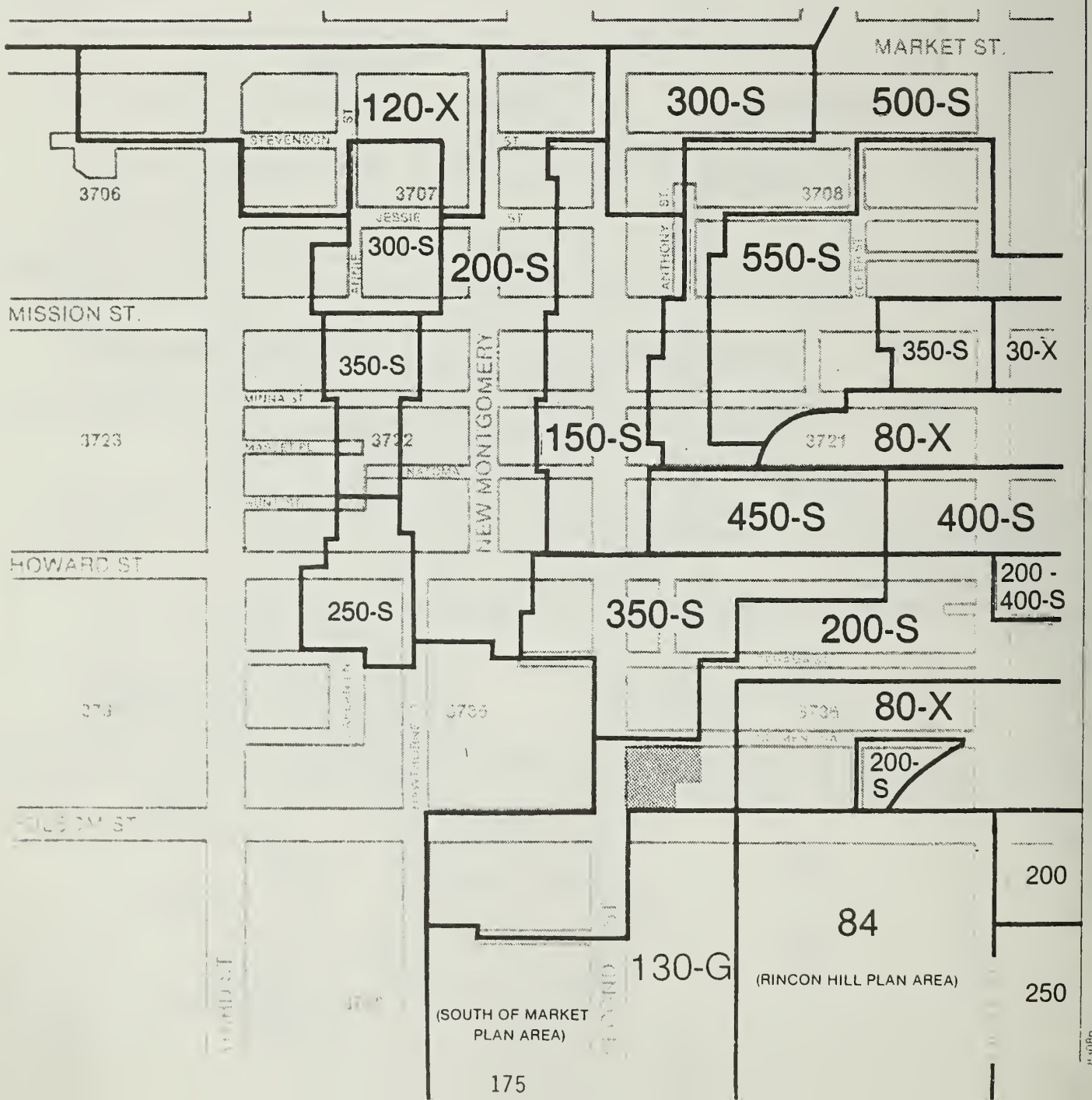
FIGURE 11

PROJECT SITE 
BLOCK NO. 3706

LETTER SYMBOLS REFER TO BULK LIMITS
IN CITY PLANNING CODE SEC. 270

NUMBERS ARE HEIGHT LIMITS IN FEET 

SOURCE: SAN FRANCISCO PLANNING CODE



The South of Market Plan, Proposal for Citizen Review, June 1985 at pages 39-43, and 66, indicate that the area along Second Street, between Folsom and Townsend Streets, is proposed as part of both a Night Time Entertainment District and Corridor Office District. Base FAR for this proposed district would be 2.5:1, with a height limit of 50 feet, compared to existing bulk and height controls of 5.0:1 and 105 feet, respectively.

The City's Rincon Hill Plan, signed by the Mayor on December 4, 1985, and effective on January 6, 1986 via City Planning Commission Resolution No. 10468, establishes a residential core of 105-250 feet in height, buffered from the Bay Bridge and nearby freeway ramps by commercial and industrial uses, with a maximum height of 84 feet. The Rincon Hill Plan area is southeast of the project site.

COMMENT

"p. 12 Please describe how the project is meeting its open space requirement. Is the greenhouse sufficient to meet the open space requirement? Is the arcade considered open space? Will public seating be provided? If the arcade was not considered open space would there be a deficit of open space requirement with only the greenhouse provided?

"Would the outdoor seating at the sites Southwest corner be shaded during the day either by the project itself, current buildings or proposed projects in the area? This is particularly important because the Draft states (p. 159) that the outdoor eating area will be windy at times.

"Also, is the outdoor eating area part of the restaurant or is it for brown baggers? If it is part of the restaurant is it being counted as open space? If so, how can this be justified since it would not then truly be "public open space" but private, revenue enhancing to the project sponsor and restaurant management." (Georgia Brittan, SFRG)

RESPONSE

Minor design changes associated with structural considerations has resulted in revision of the ground floor plan. Open space uses increase from the 5,805 gsf stated in the DEIR to 6,435 gsf, an increase of 630 gsf (10.9%). This space is distributed in the following manner:

greenhouse:	1,330 gsf
arcade:	1,480
outdoor areas:	<u>3,625</u>
	6,435 gsf

The revised open space figure exceeds the open space requirements of the permanent controls to implement the Downtown Plan by 630 gsf. The increase in open space would be located on the Second Street frontage and would consist of a slight recess in the entrance area, while retaining the building features shown in Figure 5 of the EIR.

If the arcade were not considered open space, the proposed project would not comply with the City Planning Code.

Publicly accessible outdoor eating areas would be provided along Folsom Street north of Second Street. Figure 5, at page 260 of this document, shows that these areas also serve as seating areas. As shown in Figure 2 of the EIR, the area is similar in design to a greenhouse, and is identified as such in Figure 5.

The outdoor eating areas would be shaded during the morning from September through March, and during the late afternoon from March to June. The September through March shadow would be cast by existing buildings or buildings currently under construction. The March through June shadows would be cast by the project.

The outdoor eating areas would be accessible from the street, and are not considered part of the adjacent restaurant. The outdoor eating areas would be open to "brown baggers" and others in the area.

The revised open space total of 6,435 gsf will result in the following changes in the EIR:

- page 1, second paragraph, line 11, replace "15,805" with "16,435"
- page 12, second paragraph, line 10, replace "5,805" with "6,435"
- page 58, first paragraph, line 3, replace "15,805" with "16,435"
- page 58, first paragraph, line 4, replace "5,805" with "6,435"

- page 60, in open space discussion under column heading "Project", replace "5,805" with "6,435"
- page 64, second paragraph from bottom, second line, replace "5,805" with "6,435". Replace last sentence in paragraph with the following: "The amount of open space included in the project exceeds the amount required under the Downtown Plan by 635 feet."
- page 65, first line on page, replace "15,805" with "16,435"; replace "290,735" with "290,105"
- page 65, second line on page, replace "290,735" with "290,105".

Table 2, at pages 59-62 of the EIR, has been revised, and appears at pages 283 - 280 of this document. Included in the revised table is the revised open space total.

COMMENT

"p. 21 Please describe the current uses and users at the site in greater detail. What is happening to these tenants? Are they, particularly Elsie's Caffé and Deli, being offered the opportunity and incentive to reopen at the site at current rents? Also, please include some discussion of the growth-inducing effects of the project (p. 153) on the six residential units at 568 Folsom Street. What can be done to protect these units from either conversion or demolition. Especially in light of the planned residential units at Rincon Hill and the units under construction at St. Francis Place, this area should be amenable to residential use under City plans and will not be all office use. Also with regard to growth inducement, please discuss the growth inducement of the small firms and businesses on the site moving out of the C-3 into the adjacent non-C-3 or the San Francisco, non-Downtown, non-C-3." (Georgia Brittan, SFRG)

RESPONSE

Current uses and users on the project site are discussed and listed on pages 21 and 22 of the DEIR. Employment estimates of those uses appear at page 48 of the DEIR.

All current tenants on the project site have elected to relocate to other locations in both the C-3 District and non-C-3 areas of the downtown.¹ Owing to prevailing high vacancy rates for office/retail/restaurant uses at the present time, many tenants have relocated in

anticipation of project approval to avail of relatively advantageous lease terms. Further, many of the tenants would not be financially capable of relocating back to the project site after the 18-month construction period is completed. A series of such moves within 18-24 month period is not generally perceived as financially viable by small businesses in the area.²

In February 1986, the Board of Supervisors proposed an ordinance requiring Conditional Use authorization for conversion or demolition of residences throughout the City. The proposal is currently under environmental review (86.30ET). Such a proposal is in response to concerns that housing -- particularly low- and moderate-cost housing -- is being converted or demolished without adequate provision for replacement housing. While the property at 568 Folsom Street has been zoned for commercial uses for several years, the dominant use throughout that period has been residential. While zoning could change to reflect existing use, it is not being considered by the City at this time.

The residential units at 568 Folsom Street, however, could be rezoned to residential use. Rezoning of this parcel alone could be considered an illegal application of the City's zoning powers -- known as "spot zoning" -- unless several parcels throughout the City in similar circumstances were also rezoned to residential use. As noted above, the City is not considering the rezoning of 568 Folsom Street, or similar parcels elsewhere in the City, at the present time. Further, it must be noted that the ultimate decision to develop property in the City is made by the property owner, although development would be guided by the City's planning and zoning guidelines.

The movement of blue collar and small businesses from the downtown area due to economic market forces has been identified and analyzed in the Downtown Plan and Rincon Hill Area Plan and proposed South of Market Plan. The proposed South of Market Plan is intended to preserve existing blue collar and small business uses and provide new areas for other uses of this type to move to. (See Downtown Plan EIR at pp C&R B.53 et. seq., Rincon Hill Area Plan EIR at pp. 25-27 and 133, South of Market Plan proposal at pp. 3-4.)

As noted above, some of the firms on the project site will be relocating within the C-3 District, while others will move into the South of Market Plan area.

¹David Rathie, Project Manager, Prometheus Corporation, oral communication, March 17, 1986.

²Ibid.

B. DOWNTOWN PLAN

COMMENT

"Page 1 talks about what the FAR is on the building, or will be. And I would like to know what the FAR would be under pre-Downtown Plan rules, this same building. And what I am looking for is what the FAR would be if retail uses and any other uses that we had before counted." (Susan Bierman, CPC)

RESPONSE

Under pre-Downtown Plan regulations, the allowable base FAR for the project site would have been 7:1 (with bonuses possible for sidewalk widening, multiple building entrances, parking access, shortening walking distance, plaza provision, observation deck, and side setbacks), with a height limit of 320 feet, compared to Downtown Plan Ordinance regulations of 6:1 as a base FAR, and a height limit of 200 feet.

Under pre-Downtown Plan regulations, the project would have been in an I Bulk District, with a 170-foot maximum length and 200-foot maximum diagonal above a 150-foot base. Under the current Code a maximum 100-foot base is allowed and two sets of bulk regulations above the base (lower and upper towers) are applicable. Maximum length above the base under the current Code is 160 feet, while maximum diagonal is 190 feet (see Table 2, as revised, at pages 283-286 of this document).

Project FAR under pre-Downtown Plan regulations would be 10.7:1, with total floor area equal to 329,075 square feet. (Gross floor area would have included the ground floor level restaurant, retail and greenhouse spaces, and excluded the outdoor areas and arcade.)

COMMENT

"Our concern is that the use of TDR in this project, I think that what seems to be happening is that the TDRs are being used to make a very big building. When the Downtown Plan came out, it was presented as a document that would allow increased growth in the special district. But I think that the conception was that it would allow for buildings to have more height, that they would still be the sort of slender building that the Downtown Plan talked about creating on the skyline.

"Now I don't know if this is because of this particular lot size, because the lot size and the height combined, and if you go to the maximum height and because of the lot, the building fits in exactly with the FAR. In order to go beyond that, it has to have more bulk. Maybe this is a strange occurrence, but the last two EIRs have been very bulky buildings. I think that is a real problem, and San Franciscans for Reasonable Growth thinks it's a real problem."

"What is the justification for using TDR for an exception to the Bulk Requirements? Additionally, please state that TDR is being used for increasing the bulkiness of the project in the beginning of the EIR, rather than on page [1] 67 in the discussion of the Alternative 4, which is the no exemption to the Downtown Plan alternative.

"Why is this project receiving setback and bulk requirement exemptions? These exemptions, particularly in light of the previous 100 First Street EIR are contrary to the Downtown Plan's "supposed" goal of slender buildings. These exemptions are also contrary to the public's knowledge of the main parts of the Plan. How does the Department perceive the public's reaction will be if these two buildings are constructed as presented in the EIRs?

"In D, Alternative 4, it says if you didn't -- if there wasn't an exception to the Downtown Plan, no TDR would be used. So, it seems that perhaps there is some kind of abuse perhaps going on with the TDR system that people didn't think would be happening, particularly with producing bulkier buildings." (Georgia Brittan, SFRG)

RESPONSE

In general, when buildings are built to the maximum permissible⁴ height, adding floor area to the building -- whether TDRs are used or not -- would increase bulk. The addition of TDRs does increase the project FAR from the base level of 6:1 to 9.4:1. As noted on page 59 of the EIR, due to architectural treatment of the transition from lower to upper tower at 160 feet, the lower tower extends to an actual height of 162.5 feet. However, for Code compliance purposes, upper tower measurements begin at 160 feet.

Lower tower maximum average floor area would be 19,250 gsf, 750 gsf less than the 20,000 gsf amount permitted under Section 270(d)(2)(A) of the Code. Maximum diagonal

length would be 196 feet, four feet less than the permitted length. Maximum width of the lower tower would be 158 feet, two feet less than the permitted width.

For the project, the upper tower zone would begin at a height of 160'; average floor area in the zone would be 12,760 gsf, 760 gsf in excess of the required maximum floor area. This would result in a 6.3% exceedance of the maximum permitted average floor area in the upper tower. Maximum diagonal for the project would be 152 feet, eight feet less than permitted under Section 270(d)(2)(A) of the Planning Code. Maximum upper tower length under the Code would be 130 feet, compared to 133 feet for the project. Exceptions to the Code would have to be granted through the Section 309 review process.

Building volume reduction in the upper tower is controlled in Section 270(d)(3)(B) of the Code. Building volume would be required to be reduced by approximately 38% compared to a straight vertical extension of the lower tower. Average floor area of the upper tower would thus have to be approximately 11,935 gsf, compared to the 12,760 gsf proposed for the project.

The use of Transferable Development Rights (TDRs) in the project is intended to increase the floor area of the structure on the project site by transferring the development rights from sites identified in the Downtown Plan as locations of Architecturally or Historically Significant Buildings. As stated in Section 123(c) of the City Planning Code, the maximum allowable FAR in a C-3-O (SD) District, through the use of TDRs, is 18:1. The proposed project FAR would be 9.4:1.

One effect of increasing floor area on the project site, however, would be an increase in the project's bulk. The project, as proposed, would exceed bulk requirements, as noted above. Section 272 of the City Planning Code requires several findings prior to approval of design features that result in exceedance of bulk requirements. In addition, Section 309 of the City Planning Code requires that findings be made regarding the justification for bulk exceptions, regardless of whether TDRs are involved. Such findings are the responsibility of the decision-makers, and not the EIR.

Exceptions to setback and bulk requirements are permitted under Sections 132.1(c)2 and 272, respectively, of the Code. Exceptions provisions are not contrary to the Downtown

Plan, in that the Code language which was adopted to implement the Downtown Plan specifically allowed certain exceptions provided that certain justifications existed. Setback and bulk exceptions are discussed on pages 29, 60, and 63 of the EIR.

The discussion of Alternative Four, beginning on page 167 of the EIR, does not include a statement that the use of TDRs would constitute an exception to the Downtown Plan. Alternative Four is the "No Exceptions to the Downtown Plan" alternative. As such, among other requirements, the FAR of this alternative was limited to the base FAR of 6:1 and no TDRs were required to achieve this ratio.

As stated at page 8 of the EIR, alternative Four would respond to the Interim Controls then in effect and would not include TDRs as a part of the alternative. At the time of publication of the DEIR, no official mechanism had been adopted by the City to allow the transfer of development rights, other than from one lot to an adjacent lot. The use of and review of TDRs, as proposed in this project, is now managed via Section 128 of the City Planning Code and does not constitute an abuse of or exception to the Code. With regard to TDRs and bulk exceptions, the City Planning Commission would have to make findings of justification for bulk exceptions as part of the permit review process.

COMMENT

"The other question I have about TDRs is: Where is this building getting its TDR from? It doesn't state that in the EIR, and I think that would be useful information. The other EIR, the 100 First Street EIR, did list where it was getting its TDR from.

"p.1 Which historic building is supplying the TDR to 299 Second Street? How much of the gross floor area of 299 Second Street comes from the TDR? Please define it as FAR as well. Why doesn't the Department publish a table which shows how many TDR are being used and what is the district (C-3) and sub-district tally for total TDR and how many FAR it equals in these areas? (A balance sheet of TDR and FAR)." (George Brittan, SFRG)

RESPONSE

The project sponsor would obtain TDR credits from the YMCA Central Branch at 220 Golden Gate Avenue. The project sponsor would comply with City Planning Code Section 128 and any standards adopted by the City pertaining to TDRs.

Base FAR for the C-3-0(SD) zoning district is 6:1. Site size is 30,890 square feet, resulting in a base floor area of 185,340 square feet. The project, at 290,235 square feet and calculated FAR of 9.4:1, includes 104,895 square feet of floor area above the base floor area total which would represent the TDR total. This increase in floor area accounts for approximately 36% of project floor area.

At this time, the Department does not believe that it is necessary to provide of table of TDRs and FAR, as no TDRs have been approved pursuant to Section 128 of the Planning Code.

COMMENT

"p. 19. Required Approvals: A discussion of approvals under the Downtown Plan interim controls should be included." (Jonathan Malone, LPAB)

RESPONSE

Subsequent to the submission of this Comment, permanent controls to implement the Downtown Plan were adopted by the City, effective October 17, 1985. The discussion below indicates the project approvals which would be required under the Downtown Plan Ordinance, as adopted. The Commentor was contacted and agreed that a discussion of approvals under the Interim Controls is no longer necessary.

Page 19 of the EIR is revised, after the second paragraph, as follows (new text in uppercase):

"The proposed project would be subject to the policy of the City DOWNTOWN PLAN ORDINANCE ADOPTED EFFECTIVE OCTOBER 17, 1985 AS PART OF THE PLANNING CODE. PURSUANT TO SECTION 128 PROCEDURES, THE ZONING ADMINISTRATOR WOULD BE REQUIRED TO APPROVE THE TRANSFER OF DEVELOPMENT RIGHTS. Under the SECTION 309 review procedures, the City Planning Commission would review the building design and its environmental context, and approve, approve with conditions, or disapprove the site permit for the project. Conditions could be imposed on aspects of the project affecting:

- o EXCEPTIONS TO CITY PLANNING CODE REQUIREMENTS (E.G., SETBACK AND BULK EXCEPTIONS)
- o Building siting, orientation, massing and facade treatment, including proportion, scale, setbacks, materials, cornice, parapet and fenestration treatment, and design of building tops.
- o Views and view corridors, shadowing of sidewalks and open spaces, openness of the street to the sky, ground level wind current, and maintenance of predominant streetwalls in the immediate vicinity.
- o Traffic circulation and transit operation and loading points.
- o Pedestrian activity, such as placement of entrances, street scale, visual richness, location of retail uses, and pedestrian circulation, and location and design of open space features.
- o Public spaces adjacent to the project, such as location and type of street trees and landscaping, sidewalk paving material, design and location of street furniture.
- o Aspects of the design of the project which have significant adverse environmental consequences.
- o Other aspects of the development for which modifications are justified because of its unique or unusual location, environment, topography or other circumstances.

"A site permit application (no. 830-7557) was filed July 13, 1983, with the Central Permit Bureau of the City's Department of Public Works. PURSUANT TO SECTIONS 204.5(c) AND 309 OF THE CODE, the project sponsor would apply for a Conditional Use authorization to exceed the permitted parking allowance of seven percent of the total gross floor area ($7\% \times 329,075 = 23,035$ gsf) of the development by 22,700 ($45,735 - 23,035$ gsf).

"FOLLOWING PROJECT APPROVAL BY THE CITY PLANNING COMMISSION, THE PROJECT SPONSOR WOULD BE REQUIRED TO OBTAIN DEMOLITION, BUILDING, AND RELATED PERMITS FROM THE CENTRAL PERMIT BUREAU OF THE DEPARTMENT OF PUBLIC WORKS."

COMMENT

"Is this project being approved under the interim controls of the Downtown Plan or the permanent controls? It is unclear from the Draft EIR. The Draft cites the interim controls, however, if the project is approved under the interim controls then no TDR is allowed." (Georgia Brittan, SFRG)

RESPONSE

The project would be reviewed under the Planning Code, as amended by the Downtown Plan Ordinance. As noted by the Commentor, use of TDRs would not have been permitted under the Interim Controls.

The Final EIR will reflect the relationship of the project to the Planning Code, as it exists as of the date of certification. All necessary text changes to reflect the current Code language are provided in Chapter IV, Staff-initiated Text Changes, of this Comment and Responses document.

C. CUMULATIVE LIST

COMMENT

"San Franciscans for Reasonable Growth wishes to incorporate by reference as allowed by CEQA [California Environmental Quality Act], the following documents that have been submitted to your office at an earlier date. They are:

August 21, 1984	Comments on the Supplemental EIR for 101 Mission
December 6, 1984	Comments on the DCP Comments and Responses on One Samsome
February 13, 1983	Petitioner's Brief for the BPA on the four EIRs (the date was the original date of the hearing)
March 6, 1985	Exhibits SFRG-27 through SFRG-36 (Additional material for BPA)

"Additionally, the Brief of February 1985 and the additional material of March 1985 listed above is pertinent as comments for the 299 Second Street EIR for the following reasons:

The Draft EIR uses the same analyses as the SEIRs for the four.

The issues of cumulative development are not fully analyzed by the Draft EIR or in the SEIRs.

There is an inadequate non-C-3 analysis in both sets of EIRs.

The mitigation offered by the project sponsor in the Draft EIR is inadequate due to incomplete and misleading cumulative analysis.

"Reliance on the March 10, 1984 Cumulative List is inappropriate. It is now over one year later. Please update the status of all projects on that list to show which projects are approved by the Planning Commission or Redevelopment Agency, and which are still under review. Please add all projects which are currently under review by the Planning Commission, or any other body which has the power to approve its own projects. This particularly includes the proposed Hastings Law School speculative office buildings at Golden Gate and Larkin Streets.

"Also include the Mission Bay development which is currently being worked on by the Mayor's Office and the Department of City Planning. Please include a copy of the letter signed by the Mayor and Southern Pacific/Santa Fe which sets out the amount of development contemplated. Even if you do not believe it appropriate to include Mission Bay, please include the letter and state why you think what the Mayor has agreed to is

inappropriate, speculative (and please note the amount of money which the Department will be spending on this project according to the grant which you recently accepted), or unreasonable. If there is a dispute between the Mayor's Office and the Planning Department on this project, please set it out in all of the specifics." (Georgia Brittan, SFRG)

RESPONSE

As part of its comments on the 299 Second Street DEIR, SFRG submitted the four documents listed above, a total of over 180 pages, all of which set forth alleged insufficiencies in other environmental impact reports. None of this material is directed specifically to the 299 Second Street DEIR. The material had been previously submitted by SFRG in administrative proceedings related to the Downtown Plan Draft Environmental Impact Report and The Supplemental Environmental Impact Reports for the following project: Lincoln Mission/Spear Associates, 101 Mission Street, 100 Spear Street; Citicorp/Citibank N.A., 1 Sansome Street; Crow-Spieker No. 99, 655 Montgomery Street, Montgomery/Washington; and Vintage Properties, 160 Spear Street, Spear/Main. It is important to recognize that the Department of City Planning and the Project Sponsors of the four projects listed above have already responded in detail to the materials which SFRG has attempted to incorporate as "comments".

While the Department of City Planning believes that this method of comment is inappropriate, unfocused and over-generalized, it nevertheless summarizes below the principal comments made in the SFRG materials. The Department also summarizes below the relevant responses to the SFRG comments, which responses previously appeared in public documents relating to the various environmental impact reports for which the comments were originally submitted. The complete text of the original responses is incorporated by reference. The incorporated documents and the Summary Responses below satisfy (CEQA's requirement of reasoned, good faith analysis in response to "comments" (Cal. Admin. Code, Title 14, Section 15088(b)).

The "comments" incorporated by reference by SFRG contain many redundancies. However, even in those comments which dealt with the same general subject matter, there were certain differences in approach and emphasis. The material submitted later often contained corrections of factual errors made in the earlier materials. The Department of

City Planning has attempted to summarize the comments and the relevant responses as accurately and completely as possible, though this resulted in some repetition. On the other hand, where the materials submitted by SFRG were clearly duplicative, the summaries were not repeated, but were merely cross-referenced to the appropriate material elsewhere in the Responses to Comments Section of this EIR.

Each of the four documents referred to in the comment are discussed separately below in Sections A through D, at pp. 190 through 246 of this response. All materials referred to below in parentheticals are incorporated by reference pursuant to CEQA Guidelines Section 15150. Because the pages in the August 21, 1984 letter were not sequentially numbered when submitted, references below to the pages of that letter use page numbers added by the Department of City Planning.

A. SFRG COMMENTS ON 101 MISSION DSEIR, DAVID JONES LETTER OF AUGUST 21, 1984

This letter contained comments directed at the 101 Mission DSEIR, as well as comments directed at the Downtown Plan DEIR. Thus, the Summary Responses below summarize materials from both the 101 Mission FEIR and the Downtown Plan FEIR, each of which is available for inspection at the Department of City Planning, 450 McAllister Street, Fifth Floor, San Francisco.

Comments Directed 101 Mission DEIR

Summary Comment. The two methods used for determining cumulative impacts in the DEIR are not presented in an understandable fashion. These methodologies have not been verified. (SFRG Comments on 1010 Mission DSEIR, David Jones letter 8/21/84, Section II, p.1.)

Summary Response. The "list-based" method for determining cumulative impacts is a straight-forward approach which should be relatively easy to understand as it is based on specific known project. (101 Mission FSEIR, p. 117.) The methodology has been reviewed by the courts and was not found lacking. (SFRG v. City and County of San Francisco (1984) 151 Cal.App.3d 62.) In that case, the court found the specific application of the list-based methodology to be inadequate because the amount of proposed development

included on the list was found insufficient. That insufficiency has been remedied in the cumulative development list used in the EIR by the inclusion of projects which are under review though not yet approved. See Response to Comments on pp. 211 and 225 of this document.

The Downtown Plan forecast method for determining cumulative impacts is included in the EIR as an alternative to the list-based approach. The forecast method is, of necessity, more complex than the list-based approach. The Downtown Plan approach for forecasting future land use and employment is based on a conceptual framework for the process of urban economic development. The underlying theories and principles have been validated by many experts over the time since they were developed.

The methodologies are further explained in the 101 Mission FSEIR, pp. 116-147, which portion is incorporated by reference. The details of the assumptions, analysis, and calculations underlying the forecast approach are explained and justified in a complete and understandable manner in the Downtown Plan FEIR, pp. II.8-II.11 and materials cited there, which portions are incorporated by reference. The City Planning Commission on November 29, 1984 certified that the Downtown Plan FEIR was adequate and complete. The methodology utilized in the 299 Second Street EIR cumulative impacts analysis is also explained in each topic of the Environmental Impacts section, Section IV, of the EIR.

The material presented on pp. 86-96 of the DEIR summarizes the methods and results of the Downtown Plan EIR transportation analyses and compares the results of the Downtown Plan EIR transportation analysis to the results of the list-based analysis that has been used in past EIRs.

The type of transportation analysis used in the Downtown Plan EIR is different than the analyses used in past single-project EIRs for assessing cumulative impacts. In past single-project EIRs, the transportation analyses have relied upon the summation of the effects of a number of projects from a list of cumulative development (a list-based analysis); the summed effects were then added to existing travel volumes to give future travel volumes at screenline locations. Such analysis was necessary since no comprehensive forecast of land use or employment was available at a level of detail sufficient to allow analysis of transportation impacts within the City. When, in the process of planning the Downtown Plan EIR analysis, it became apparent that there would be a comprehensive forecast of land use and employment for the C-3 District, the transportation analysis was designed to take advantage of these forecasts.

The Downtown Plan EIR transportation analysis is based on a type of modelling process that uses total existing (and future) employment in the C-3 District as a predictor of existing (and future) travel. Both the list-based analysis and the Downtown Plan EIR analysis have similar components (trip generation, geographic distribution, modal split, and assignment processes). However, the two analyses differ significantly. The list-based analysis develops an estimate of cumulative travel by adding to existing travel volumes a summation of the travel by mode from each of the projects on the list (i.e., trips are generated and assigned for each project on the list, are summed, and then added to existing travel volumes at screenline locations). On the surface, the Downtown Plan EIR analysis may appear to use a similar process.

In reality, the Downtown Plan EIR uses a much more sophisticated process. In its simplest form, the transportation analysis for the Downtown Plan EIR predicts total travel on the basis of total employment in the C-3 District. To do this, a series of relationships were determined among travel by C-3 District employees, travel by C-3 District visitors and travel by non-C-3 employees and visitors. These relationships were determined as part of the development of the transportation model. To ensure that the model formulae were correct, a test run of the model was made for existing conditions (in the case of the Downtown Plan EIR, this was for 1981/82). The

process used was to enter the total C-3 District employment in 1981/82 into the model and see if the model would accurately predict the existing (1981/82) total (C-3 and non-C-3) loadings on the transit systems and freeways and bridges at the screenline locations. These existing loadings were known as a result of having been measured in 1981/82 as part of the Setting data collection for the Downtown Plan EIR. Adjustments were made to the model until the results from the model were sufficient approximations of existing travel. This process of adjustment is described in the Downtown Plan EIR as "validation and calibration."

Because the model starts with total C-3 District employment and uses forecasts of total future employment in the C-3 District as the basis for predicting total (C-3 and non-C-3) future travel at the screenline locations, it does not use the increase in employment or land use (i.e., a cumulative list) to develop data about future conditions. Thus, the model never adds an increment of travel from a list of projects or an employment increase to existing volumes to get future volumes. Rather, the model loads, or in essence reloads, integrated estimates of existing and future travel onto the transportation network at each step of the process.

The net result of this process is that the transportation model is a proportional relationship between total (C-3 and non-C-3) travel at the screenline analysis locations and total employment in the C-3 District. From a technical standpoint, it was not possible to ignore the non-C-3 components of travel. Thus, to be technically adequate, and to build a model that was a better predictor than the simplistic one described above, it was necessary to develop a set of equations that would estimate C-3 travel separately from non-C-3 travel. Non-C-3 travel is first addressed in the modelling process following the assignment of C-3 travel to the screenline locations. Thus, within the context of the Downtown Plan EIR, estimates of non-C-3 travel do not exist except for the final stage of the analysis of impacts.

The process of estimating the C-3 and non-C-3 travel components at each screenline was highly dependent upon the location of the analysis screenlines (see Figures IV.E.1 and IV.E.2 of the Downtown Plan EIR). The screenline locations were selected on the basis of the following criteria:

- locations which would reflect all (or a major portion) of the travel from the C-3 District to the subregional geographic zones,

- locations for which volume data was available for at least five years past, and
- locations for which it would be possible to develop estimates of the existing travel to and from the C-3 District.

Because it was not possible to completely satisfy all of the criteria for each screenline, compromises were made. The three regional auto screenlines come the closest to meeting all of the criteria; some of the transit screenlines do (BART; Muni NE, SE; AC) and some don't meet all of the criteria (Muni NW, SW; Golden Gate Transit; SamTrans; SPRR/CalTrain). Development of the analysis screenlines led to a set of analysis constraints that implicitly dictate that C-3 travel demand comprises a large portion of travel at each screenline.

Because of the compromises that entered into selection of the analysis screenlines, only some of the screenlines had data which could be used to separate existing C-3 travel from non-C-3 travel. In the validation and calibration of the travel model (using 1981/82 data), the estimation of non-C-3 travel was developed on the basis of adjusting the model until the results for both C-3 travel and non-C-3 travel matched those values that were known. Thus, the model was calibrated to match a set of known, but incomplete, data points. When reasonable accuracy in predicting the known values was achieved, the model results were tested against the entire data base. Where the values were known or were apparent from the model results, those values were carried independently throughout the analysis. Where the model results were found to be predicting C-3 travel equivalent to total travel, and where non-C-3 travel was not known because of route structure or terminal location, the assumption was made (as discussed on pp. J.23-24 of Appendix J of the Downtown Plan EIR) that the model, while overestimating the amount of C-3 travel, was accurately predicting total travel (including non-C-3 travel).

As discussed in the Downtown Plan EIR, the transportation model identifies specific values for non-C-3 travel at most of the screenlines. Once these non-C-3 components of travel had been identified, it was not plausible to assume that they would not change over time. Thus, a reliable method of projecting growth in the non-C-3 travel at the screenlines had to be developed. The only information available about growth in travel at the screenlines was from counts made in past years at the screenlines. The count information was for total travel only. A growth rate for each screenline was developed by calculating the overall increase in peak

hour and peak period travel for the period 1977 to 1982. Even though these growth rates included changes from both C-3 and non-C-3 areas, they were applied only to the non-C-3 components. When the fact that these growth rates include the effects of the increase in C-3 District employment between 1977 and 1982 is considered, it is apparent that the rates conservatively overestimate the potential for growth of the non-C-3 components of travel at the screenlines.

As noted on p. 90 of the EIR, the differences in travel projections between the two methods result from the use of differing technical methods and the use of different data bases. The following discussion which has been reproduced from pp. 173-177 of the Final Supplement EIR(SEIR) for the Montgomery-Washington building (81.104E, Department of City Planning, Certified December 6, 1984) presents a more detailed explanation of the technical and data base differences between the two methods of analysis.

[T]he Downtown Plan EIR method and the September 1983 Transportation Guidelines method differ for the following three major reasons:

- the total amount of travel projected by the two methods is different (the list-based analysis projects less cumulative travel);
- the two methods use different residential distributions (the Transportation Guidelines assign more people to San Francisco); and
- the two methods use different modal splits.

Regarding the difference in total travel projection, on a single-project basis, the two methods would project the same amount of travel because the trip generation rates from the 1983 Guidelines were used to project the project travel in the [Draft] SEIR. The difference in travel is present only at the cumulative level and is a result of two factors. The primary factor is that the cumulative list method projects less overall travel than does the Downtown Plan EIR Method for the year 2000. This underestimate arises from the fact that the List can project only known development and thus cannot include development yet to be proposed. Conversely, the Downtown Plan EIR method, through the use of forecasts, has estimated additional growth in the future to the year 2000 (growth that the List does not include). As noted on p. 48 of the [Draft] SEIR, the secondary difference is a function of the fundamental difference between the two methods. The list-based analysis assumes all cumulative travel will come from only two sectors of development (office and retail), whereas the Downtown Plan EIR projects travel from all sectors of future development. An additional factor complicating the comparison of the two methods is that the list-based analysis employs single-use trip generation data to estimate total travel through the process of adding together the trip

generation estimates from all the individual buildings on the list. These single-use trip generation rates do not account for trips going from one building to another within the Downtown. Studies for the Downtown Plan EIR have confirmed that there is considerable travel between land uses in the downtown area. The list-based analysis adds each trip as if it were a new trip in or out of the downtown, and thus overestimates the total number of peak-hour and peak-period trips in and out of the downtown area. Because the Downtown Plan EIR analysis deals with total travel to and from the C-3 District, a refined method of projecting travel that accounted for travel made between land uses inside the C-3 District was used. Because the discounting for trips internal to the C-3 District was applied at the trip generation stage of the travel demand analysis, the amount of discounting is uniform throughout the analysis (i.e., the internal travel was removed from the analysis prior to assigning travel to subregional zones or to travel modes). Analysis (Intra-CBD Secondary Travel Patterns of Downtown Workers, ASCE, 1982) has shown that while internal travel occurs throughout the day, the majority of internal trips take place during the 11:00 a.m. to 1:00 p.m. period. Additionally, the same data show that between 30% and 60% of downtown workers make trips internal to the downtown during the working day (the ASCE data did not count trips made internal to a single building, only trips between buildings). In terms of the office trip generation rate from the 1983 Guidelines (18.1 pte per 1,000 gross sq. ft.), if an average of 45% of downtown office employees make one trip (2 pte -- one going, one returning) internal to the downtown area during the work day, then approximately 20% of the travel to and from a proposed office building in the downtown would be overcounted as new travel in and out of the downtown area by the 1983 Guidelines. When the effects from more than one land use and more than one proposed building are added together (i.e., the double-counting of the two ends of the same internal trip from office to retail is inherent in the 1983 Guidelines trip generation rates), the effect of overcounting of new travel in and out of the downtown becomes extreme.

The trip generation process used in both methods first calculates travel on a daily basis and then applies peak-hour and peak-period percentages to the daily travel to get peak-hour and peak-period travel. Because the process uses percentages of daily travel to get peak travel, the 1983 Guidelines rates inherently incorporate the same percentage of over-counting in the peak as in the daily travel. For the Downtown Plan EIR, the daily trip generation rates and the peak percentages were selected independently of those in 1983 Guidelines and validated through comparison with observed travel volumes to and from the C-3 District. Because of the validation process, it is not possible to determine the percentage of internal travel discounted from the peak rates in comparison with the discounting at the daily level. Additionally, because of the two discrete time frames used in the Downtown Plan EIR, the amount of internal travel during the peak hour (4:30 p.m. to 5:30 p.m.) differs from that during the peak period (4:00 p.m. to 6:00 p.m.). A trip that remains internal to the C-3 District during the peak hour but leaves the C-3 during the peak period would be counted under the Downtown Plan EIR only as an outbound peak-period trip (which it is in terms of the screenline analysis) whereas the 1983 Guidelines would count it as two outbound trips, one in the peak hour (from the primary land use) and one in the peak period (from the secondary land use).

Regarding the differences in travel by mode in Table 2 (in the Draft EIR, Table 5, p. 93 in the 299 Second Street EIR), the changes in residential distributions and modal splits between the two methods account for most of the differences. (All of the data used to develop the following comparisons is on file with and available for public review by prior appointment with the Department of City Planning, 450 McAllister St., Fifth Floor.) The following chart illustrates how the changes in modal split and the changes in residential distribution affect the total travel assignment. The data in the chart was developed on the basis of the travel demand from a hypothetical downtown building that has 500,000 gross sq. ft. of office space and 40,000 gross sq. ft. of retail space. Such a building would generate about 860 p.m. peak-hour work-related person trip-ends (pte) under either method of cumulative analysis. The chart shows p.m. peak-hour work travel first assigned on the basis of the 1983 Guideline residential distribution (Area %) and modal split (Mode %). To show the effect of the change in residence patterns and modal split under the Downtown Plan EIR, two intermediate conditions are shown. One condition shows how changing the residence pattern only (i.e., the modal split is not changed) affects the travel assignment. The other shows the effects of changing only the modal split while holding the residence pattern constant. The fourth condition in the chart is that of the composite effect of changing both the residence pattern and the modal split.

The chart illustrates the fact that it is not possible to apply one conversion factor to get from the list-based results to the Downtown Plan EIR results. The comparison process is further compounded because other (non-work) travel assignment is changed in a similar fashion. The distribution of downtown workers by county of residence throughout the region (the residence patterns for downtown workers) was an input to the transportation analysis using both the list-based approach and the Downtown Plan EIR approach. Under the list-based approach where residence patterns are derived directly from the results of the 1982 C-3 District Employee Survey, the percentage of the downtown workforce residing in San Francisco is assumed to remain constant over time. Implicitly, this assumes that, in the future, employment, housing, and the employed population in San Francisco relative to the rest of the region continue to reflect the current pattern. On the other hand, the Downtown Plan EIR forecast approach accounts for changes over time in the relative availability of housing and labor force throughout the region. Under the Downtown Plan EIR forecasts, the percentage of downtown workers residing in San Francisco declines over time. The basic assumption is that employment growth in San Francisco will exceed the growth of the City's employed population and that the growth of the City's employed population will not be proportional to the growth of the labor force residing elsewhere in the region. In other words, in the future, the relative importance to downtown jobs of the region's labor force residing outside of San Francisco will increase. This is consistent with long-term trends. Additionally, while it may appear that the changes between 1984 and 2000 for mode and residence patterns in the Downtown Plan EIR method are the sole reasons for the differences in the two methods' results, in fact, as with the change between the 1980 and 1983 Guidelines (see preceding comment), the 1984 modal split and residence patterns in the Downtown Plan EIR are different from those in the 1983 Guidelines. The 1983 Guidelines present partial results of survey data

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(i.e. primary office), whereas the Downtown Plan EIR analysis uses composite data that incorporate travel from all land uses in the C-3 District. Thus, a portion of the change shown in the chart is a result of using a more complete data base than is available in the 1983 Guidelines.

In the case of Muni travel, the differences are attributable to the same three causes - differences in total trip generation, residence patterns and modal splits. Comparison of the travel assignment percentage for p.m. peak hour work travel shows Muni travel to the four San Francisco zones as follows:

<u>San Francisco</u>	Muni Travel as a Percentage of Total P.M. Peak Hour Work Travel		
	<u>1983 Guidelines</u>	<u>Percent Change between Guidelines and Downtown Plan EIR</u>	<u>Downtown Plan EIR</u>
Northeast	1.8%	4.6%	156%
Northwest	15.6%	5.9%	-62%
Southwest	12.2%	8.4%	-31%
Southeast	1.8%	4.3%	<u>139%</u>
Total	31.4%	23.2%	-26%

As shown in the chart, although the total Muni assignment differs by 26%, individual changes among the four zones vary as much as 156%. When coupled with the changes in other travel and the fact that the Downtown Plan EIR shows an increase in travel (see Table 2 of the DSEIR) that is 77% greater than the increase generated by the list-based analysis (as a result of the broader mix of land uses and longer time frame), it is not possible to apply a constant conversion factor. Regarding the percent change between the List-based results and the Downtown Plan results in Table 2 of the DSEIR, the range of the changes is from -88% for AC/Transit to 300% for SamTrans.

The distribution of workers by place of residence (the residence patterns for downtown workers) was an input to the transportation analysis using both the list-based approach and the Downtown Plan EIR approach. In the list-based approach, the inherent assumption is that the relative availability of housing throughout the City in the future would reflect current patterns. The residence patterns of downtown workers living in San Francisco using this approach were derived directly from the results of the 1982 C-3 District Employee Survey. On the other hand, the Downtown Plan EIR forecast approach included assumptions about how the relative availability of housing in different City locations would change over time. The residence patterns forecasts for C-3 District workers in the year 2000 which are used in the transportation analysis reflect this different assumption. The basic assumption is that there would be relatively more housing in the eastern parts of the City (near the downtown) in the future as compared to the current overall distribution. The City's Residence Element identifies opportunities for adding substantial numbers of units in mixed-use projects and redevelopment areas in this part of the City. (See Downtown Plan EIR, p. IV.D.60 and note 42.)

COMPARISON OF P.M. PEAK-HOUR WORK TRAVEL ASSIGNED USING THE LIST-BASED AND DOWNTOWN PLAN METHODS

<u>Subregional Zone</u>	Guidelines Area %/a/ Guidelines Mode %/b/ <u>Pte/c/</u>		Downtown Plan Area % Guidelines Mode % <u>Pte</u>		Downtown Plan Area % Guidelines Mode % <u>Pte</u>		Downtown Plan Area % Guidelines Mode % <u>Pte</u>		Downtown Plan Area % Guidelines Mode % <u>Pte</u>	
	<u>from 1983/d/</u>		<u>% Change</u>		<u>from 1983</u>		<u>% Change</u>		<u>from 1983</u>	
San Francisco Travel										
Drive Alone	42	39	-7%	106	152%	94	124%			
Carpool, Vanpool	37	34	-8%	45	22%	40	8%			
Transit	311	277	-11%	235	-24%	209	-33%			
Other	40	39	-3%	43	8%	42	5%			
Total	430	389	-10%	429	0%	305	-10%			
Regional travel										
Drive Alone	46	55	20%	26	-43%	33	-28%			
Carpool, Vanpool	52	57	10%	114	119%	128	146%			
Transit	326	353	8%	279	-14%	305	-6%			
Other	10	12	20%	6	-40%	8	-20%			
Total	434	477	10%	425	-2%	474	9%			
Total/e/	864	866		854		859				

/a/ Area% stands for the residential distribution used.

/b/ Mode % stands for the modal split used.

/c/ Pte stands for person trip-ends.

/d/ Percent change from results of using 1983 Guidelines Area % and Mode %.

/e/ Totals vary as a result of rounding.

SOURCE: Environmental Science Associates, Inc.

The primary differences between 1983 Guidelines and the Downtown Plan EIR are discussed above. The (preceding) Response discusses the differences between the 1980 Guidelines and the 1983 Guidelines. The requested comparison of project impacts (travel by mode) among the three methods is not valid since under the Downtown Plan EIR method, travel by mode for the project would be assigned using modal splits for the year 2000, whereas under the Guidelines, the project travel would be assigned to modes on the basis of modal splits for the years 1980 and 1983, respectively, as the Guidelines modal splits do not change over time. Additionally, the method described in the comment to be used to define the project share of travel in the year 2000 would not correctly represent the project travel as the Downtown Plan EIR projects total travel, not just travel from offices.

Summary Comment. The Downtown Plan forecasts an unprecedented drop in the demand for office space in the next sixteen years. Given the recent history of office development in downtown San Francisco, the Downtown Plan office development forecasts are so low as to weaken their credibility and cast doubt on the approach and methodology. The Downtown Plan forecast methodology should be applied to historic data to determine whether it could accurately predict recent actual development rates. (SFRG Comments on 101 Mission DSEIR, David Jones letter of 8/21/84, Section II(1) and (6), pp. 2-6 and 9.)

Summary Response. The Downtown Plan EIR does not forecast a dramatic slowing of economic growth in downtown San Francisco, as alleged. SFRG's comparison of historic data to the Downtown Plan EIR forecast is flawed in several respects. After adjusting for these flaws, such a comparison shows that the Downtown Plan forecasts a much more modest slowdown in downtown office growth than suggested by SFRG.

The Downtown Plan EIR forecasts a lower rate of development in the C-3 District in the future as compared to the past for several reasons:

- changes in C-3 District controls through implementation of the Downtown Plan will affect future office development;
- recent rates of development will not be sustained over the long term;
- the C-3 District will provide a smaller share of city-wide office development in the future.

In addition, reviewing forecast of office development provides only a partial picture of the economic growth as expected under the Downtown Plan. Employment growth, a more

direct measure of many impacts, is forecast to exceed office space over the next 15 years.

The Downtown Plan forecast methodology is not a computer model to which historic data can simply be input. The forecast was drawn from a variety of sources, not all quantitative. The forecast reflects changes over time.

The methodology and approach for the Downtown Plan forecasts are reasonable and provide useful information for the public and decision-makers. The results are not so different from past experience as to cast doubt on the credibility of the forecast. (101 Mission FSEIR, pp. 120-133, pp. 146-148.)

Summary Comment. The list-based approach for determining cumulative impacts is not comparable to the Downtown Plan forecast approach because it is based on a different time frame. the list-based approach assumes not development from the year 1990 to the year 2000. The list should be extended by assuming additional development at the recent rates of construction. Details should be provided indicating how many projects and how many square feet of projects on the list will be completed in each year. (SFRG Comments on 101 Mission DSEIR, David Jones letter of 8/21/84, Section II(3), (4), (5), pp. 6-9.)

Summary Response. The essence of the list-based approach to cumulative analysis is that estimates of future development are based on a list of reasonably foreseeable future projects under construction, approved, or under formal review pursuant to the standards established by the Court. While a time frame for completion and occupancy of these projects is relevant for assessing cumulative impacts, the list-based approach is simply not defined to include growth over any specified time period.

The list-based approach does not assume that no development would occur from 1990 to 2000 as alleged in the comment. If one were to put a time frame on the cumulative impacts to occur because of the development of the office projects on the March 10, 1984 list, it would be sometime during the 1990's, not by 1990, as suggested in the comment.

By definition, the list-based approach makes no assumption whatsoever about future development beyond those projects for which application has been made. This exemplifies the usefulness of the cross check which the use of the two different methods provides.

Extension of the list-based approach beyond applications requesting review would be speculative and inconsistent with the fundamental basis of this approach. Furthermore, if the list of projected were extended, the method suggested by SFRG would not be appropriate. The recent, short term rate of construction does not provide a valid basis for estimating a longer term pattern. Such an extension of the list-based approach would more properly use the forecasting techniques used to forecast development under the Downtown Plan EIR contains lengthy and adequate discussion of the basis for such a forecast, and includes an alternative which assumes that the current Planning Code is not changed.

Short term estimates of how many projects and how many square feet of space will be completed in each year would be highly speculative as they would depend on a variety of project-specific assumptions beyond the control of the Department of City Planning. It is not certain if and when these projects would be approved, or the extent to which they might change in the course of the review process. See Response to Comments on p. 215 of this document. (101 Mission FSEIR, pp. 133-138.)

Summary Comment. The FEIR should indicate what housing and transportation demand will be generated throughout the Bay Area and whether other counties have the plans or ability to construct the housing necessary to satisfy the demand for housing resulting from the projected San Francisco office development. (SFRG Comments on 101 Mission DSEIR, David Jones letter of 8/21/84, Section II(7), p. 9.)

Summary Response. The Downtown Plan EIR was based on a consistent set of forecasts of jobs, housing, and workers throughout the region to the year 2000. ABAG's forecasts of future housing apply and employment for counties outside San Francisco were combined with estimates for San Francisco to develop region-wide totals for the year 2000 and to

describe the amount and distribution of regional housing and employment growth during the 1980's and 1990's. This comment offers no new or different information for decision-makers. See the Downtown Plan EIR Comments and Responses, Section D.3.2.1, which portion is incorporated by reference. (101 Mission, FSEIR, pp. 213-218.)

Summary Comment. The EIR should evaluate the effect of limiting city-wide construction of office space to 500,000 square feet per year and determine whether or not such a limit is consistent with the annual average amount of growth predicted by the Downtown Plan. (SFRG Comments on 101 Mission DSEIR, David Jones letter of 8/21/84, Section III, p. 10.)

Summary Response. SFRG's calculation of the annual average development under the Downtown Plan is not correct. On an annual average basis, the Downtown Plan EIR forecasts that approximately 930,000 square feet per year will be approved in the C-3 District through the year 2000. The best estimates of the long-term annual average office project approvals at the levels expected in the C-3 District under the Downtown Plan between 1990 and 2000 is approximately 840,000 square feet, independent of the amount of space in the pipeline. (Space in the "pipeline" refers to space in projects which have been approved, are under construction or have been built, but not yet occupied.) Limiting annual office construction approvals to 500,000 square feet per year would not allow the same amount of growth forecast under the Downtown Plan EIR.

The Downtown Plan EIR considers the effects of alternative cumulative development scenarios, and includes an annual limit on city-wide office construction. The Department of City Planning expects to monitor future approvals and development closely, relative to the Downtown Plan EIR forecasts. (See pp. V.A.1-V.A.5 in the Downtown Plan EIR and pp. C&R-B.43, C&R-B.60, C&R-B.79, C&R-D.75 and C&R-P.1-C&R-P.4 in the Downtown Plan EIR Comments and Responses, which portions are incorporated by reference.) (101 Mission FSEIR, pp. 149-153.)

Summary Comment. The Downtown Plan EIR transit and transportation forecasts differ widely from the list-based forecast. (SFRG Comments on 101 Mission DSEIR, David Jones letter of 8/21/84, Section IV, pp. 11-13.)

Summary Response. Three major reasons account for this difference:

- the total amount of travel projected by the two methods is different (the list-based analysis projects less cumulative travel);
- the two methods use different residential distributions (the Transportation Guidelines assign more people to San Francisco); and
- the two methods use different model splits.

Complete discussion of the reasons for and the results of the differences is contained in the 101 Mission FSEIR, pp. 176-181, which portion is incorporated by reference.

Summary Comment. Are the employment opportunities created by this new office development project necessary to provide sufficient job opportunities to existing San Francisco residents with the prerequisite skills, or are there already sufficient job opportunities for existing skilled residents created by the turnover in existing office development? (SFRG Comments on 101 Mission DSEIR, David Jones letter of 8/21/84, Section V, pp. 14-16.)

Summary Response. It is important to understand that job growth and job turnover are interrelated. They cannot be treated as two separate and distinct sources of employment opportunities. Employment growth provides opportunities that would not otherwise be available and is the only way that a larger number of people will be employed downtown. Job turnover provides employment opportunities, but not all those newly employed due to turnover are people who were not previously working, and those newly employed are not all in new jobs. Increased economic activity in downtown San Francisco increases the probability that unemployed San Franciscans will find jobs in the City.

The projected employment growth covers a broad range of occupations and labor force characteristics -- not of the growth is in the more highly-paid positions requiring more skills and experience. With job growth, there are more opportunities and more different types of jobs for those seeking advancement or a more convenient job.

Unfortunately, it is likely that there will be unemployed San Franciscans under all scenarios. However, it is clear that continued employment growth would provide more

employment benefits than would no growth. The employment benefits resulting from continued downtown growth, in a cumulative sense, is a proper factor for consideration of project impacts by decision-makers. (101 Mission FSEIR pp. 223-229.)

b. Comments Directed to Downtown Plan DEIR, Attached to letter of 8/21/84

Summary Comment. The source of 1981/82 base capacity data for transit systems should be cited and the accuracy of this data should be verified. The EIR's analysis of transit capacity changes between 1981/1982 and 1984 contradicts the Department of City Planning 1981/82 and 1983 Transit Guidelines. 1984 overcrowding on Muni is vastly understated. (SFRG Comments on Downtown Plan EIR, David Jones letter of 8/21/84, Section I, pp. 17-22.)

Summary Response. The 1981/82 base capacity data for Muni used in the Downtown Plan EIR are summations of actual counts of individual transit lines for that period of time, based on observed operating conditions as opposed to scheduled operation. Muni applied the data for the EIR analysis from its ongoing program of ridership checks. Muni was involved in the process of verifying the EIR transportation analysis.

The Department of City Planning prepared Transportation Guidelines in 1978, 1980, and 1983; it did not prepare any revisions in 1981/82. None of these can be accurately compared to the EIR 1981 base data, nor to the EIR estimates of 1984 capacity, because the time frames are different and because different approaches were used to aggregate and use the data. Conclusions about ridership increases or decreases cannot appropriately be drawn from the material in the comment.

The Downtown Plan EIR portrays 1984 conditions on Muni as accurately as possible. As noted above baseline transit capacities were based on Muni's ongoing program of ridership checks. While there are those who would quibble with the tally results of the ridership checks, the ride checks provide the only data collection program available. (Downtown Plan FEIR, Comments and Responses, Section E.1.2, E.1.6, E.2, E.2.1, E.2.2, and E.2.2.2.)

Summary Comment. Will Muni and other transit agencies have the financial capability to operate and expand as proposed? (SFRG Comments on Downtown Plan EIR, David Jones letter of 8/21/84, Section II.A and II.D, pp. 23-27 and 29.)

Summary Response. Each of the six individual transit properties serving San Francisco (i.e., Muni, Bart, AC Transit, GGBHTD, SamTrans, and CalTrans/SP) have unique composite sources of revenue for transit operations, which are summarized at Table C&R E.7, p. C&R-3.33 in the Downtown Plan FEIR, which portion is incorporated by reference.

Based on analyses prepared for the SF Chamber of Commerce and projections of regional capital revenues prepared by MTC, it appears that there would be sufficient revenue to maintain the transit service assumed in the EIR analysis. (Downtown Plan FEIR, Comments and Responses Section E.2.1.2 and E.2.7.)

Summary Comment. The effects of non-C-3 District transit demand should be quantified. (SFRG Comments on Downtown Plan EIR, David Jones letter of 8/21/84, Section II.B and II.C, pp. 28-29.)

Summary Response. Non-C-3 District travel is travel that does not have an origin or destination in the C-3 District, yet occurs in the same transportation network as C-3 transit. It is important to bear in mind that the Downtown Plan EIR does not purport to be an environmental document for all Bay Area regional employment growth. Nonetheless, the EIR impact analysis isolates C-3 travel from non-C-3 travel whenever possible in the regional transportation networks in order to project the impact of continued Downtown employment growth.

Non-C-3 travel was factored into the analysis for both existing and projected future conditions. Historic transportation growth rates were used to project increases for non-C-3 district travel at some of the regional screenlines. Changes in non-C-3 travel at the screenlines constitutes a relatively small portion of the total future peak-hour travel volumes. The assumption that historic trends in total travel at the screen lines would continue unchanged into the future and would apply to the non-C-3 travel component potentially overestimates non-C-3 travel growth in light of growth forecasts made for the Downtown Plan EIR and by ABAG. (Downtown Plan FEIR, Comments and Responses, Section E.1.5, B.1.2, E.1.2.) See Response to Comments p. 227 of this document.

Summary Comment. The Muni level of service operating criteria should be discussed. (SFRG Comments on Downtown Plan EIR, David Jones letter of 8/21/84, Section II.E, p. 30.)

Summary Response. Muni service standards have been revised frequently in recent years to be more reflective of passenger's views and more consistent with the rest of the region's transit operators' standards. The Downtown Plan EIR impact analysis measured ridership in terms of passenger-seat ratios and Level of Service designations rather than percent of total capacity, and thus ridership and load factors were accurately portrayed in the Downtown Plan EIR and need not be revised as were the Muni service standards. The Level of Service descriptions are nationally recognized measures of passenger comfort. (Downtown Plan FEIR, Comments and Responses, Section E.2.2.1.)

Summary Comment. The assumption on the direction of peak p.m. non-work travel from the C-3 District underestimates the travel in the commute direction. (SFRG Comments on Downtown Plan EIR, David Jones of 8/21/84, Section II.F, p. 30.)

Summary Response. Absent any other local travel distribution studies or analyses, published national studies provided the basis for the assumption of an even inbound/outbound split for non-work travel. (Downtown Plan FEIR, Comments and Responses, Section E.1.2.)

Summary Comment. The jammed intersections resulting from increased vehicle traffic will so impede Muni and other transit systems that merely adding more transit vehicles will not effectively increase transit capacity. (SFRG Comments on Downtown Plan EIR, David Jones letter of 8/21/84, Section III. pp. 31-32.)

Summary Response. To the extent that congestion currently impeding operation is inherent in the baseline dates used, the future analysis has included congestion effects. It is not possible to accurately quantify the amount of additional running time (or associated costs) for transit vehicles that would result from future congestion, since conditions vary on a day to day basis and there is currently insufficient information to properly analyze

the effects. Numerous traffic and transit mitigation measures have been proposed which would reduce the impact of the congestion on Muni. (Downtown Plan FEIR, Comments and Responses, Section E.2.2.3.)

Summary Comment. Will limiting parking places in the downtown area encourage more transit use? (SFRG comments on Downtown Plan EIR, David Jones letter of 8/21/84, Section IV, p. 32:)

Summary Response. As a matter of policy, the City of San Francisco has constrained the number of parking spaces downtown and allowed economic factors to dictate parking costs. As a consequence, San Francisco has a relatively high cost of downtown parking and has relatively high transit ridership as compared to other cities. There is virtual agreement throughout the entire transportation literature that by placing a functional ceiling on the amount of parking spaces in an area, the number of autos coming into an area is likewise constrained. By constraining the number of parking spaces in downtown, the effect has been, and will continue to be, to increase the value of parking spaces and to encourage transit use. (Downtown Plan FEIR, Comments and Responses, Section E.4.)

Summary Comment. The capacities of the bridges, Highway 101, and Interstate 280 based on actual operating experience should be discussed and evaluated. The effects of increased traffic volume in San Francisco neighborhoods should be discussed. (SFRG Comments on Downtown Plan EIR, David Jones letter of 8/21/84, Section II, pp. 34-35.)

Summary Response. The transportation analysis properly reflects actual operating experience on the bridges, Highway 101, and Interstate 280. The traffic data used in the Downtown Plan EIR show representative average peak-period traffic conditions (less than optimal capacity). The data do not reflect seasonal peak conditions or conditions impeded by inclement weather or severe accidents. Because of the temporary nature of abnormal conditions, the average conditions used in the analysis are more representative of day-to-day operating conditions and provide a better basis for analysis of transportation operations.

The Downtown Plan EIR raises the issue of increased traffic on parallel routes in the San Francisco neighborhoods as an informational point, since it is beyond the levels of

accuracy of the analysis to predict how individual motorists will choose routes in the year 2000. Comprehensive, historical data are not available to compare traffic increases as a function of downtown growth for neighborhood streets. (Downtown Plan FEIR, Comments and Responses, Sections E.1.3, E.3.1, E.3.2.)

Summary Comment. The basis for determining the proportion of the Bay Bridge traffic coming from the C-3 district underestimates the C-3 originating trips. (SFRG Comments on Downtown Plan EIR, David Jones letter of 8/21/84, Section III, p. 36.)

Summary Response. The Downtown Plan EIR properly assesses the impact of C-3 District traffic on the Bay Bridge. The analysis considered the effects of congestion at various points in the downtown and relied no upon a single access point, but upon analysis of all the access points to the bridge. Automobile usage on the bridge does not relate directly to changes in traffic originates outside downtown San Francisco. Appendix J of the Downtown Plan EIR and the supporting documentation, which are incorporated by reference, contain further explanation of this analysis. (Downtown Plan EIR, Comments and Responses, Section E.1.2.)

Summary Comment. What is the basis for the assumption that transit use will increase and automobile use will decrease? (SFRG Comments on Downtown Plan EIR, David Jones letter of 8/21/84, Section IV, pp. 36-37.)

Summary Response. The presumption that people change modes has been validated in a number of empirical studies which show that increase in regional travel have been accommodated without corresponding increases in auto travel. It would be illogical to assume increased service capabilities on transit and static highway capacity without minor modal reassignment. If, however, the future modal assignments were assumed to remain fixed at current levels, the resulting impact analysis would not be the most conservative, in that it would underestimate transit ridership demands and overestimate auto use. (Downtown Plan EIR, Comments and Responses, Section E.1.2, E.1.4.)

Summary Comment. The EIR should give some indication of how much longer the morning and evening commute periods will be extended by 1990 and 2000. (SFRG Comments on Downtown Plan EIR, David Jones letter of 8/21/84, Section V, p. 37.)

Summary Response. it is not expected that the time associated with typical average commute trips would dramatically change between the present time and the year 2000. This is consistent with historic trends which demonstrate that average individual journey-to-work trip travel times have remained remarkable constant. The overall two-hour commute period is not expected to increase substantially in the future. Rather the occurrence of the peak-of-the-peak conditions, now less than one hour, most likely would expand to fill the one hour period. Sufficient capacity would be available in a two hour period to absorb the majority of the demand. (Downtown Plan FEIR, Comments and Responses, Section E.1.4.2.)

B. PETITIONER'S BRIEF FOR THE BOARD OF PERMIT APPEALS DATED FEBRUARY 14, 1985

This Brief was submitted by SFRG to the Board of Permit Appeals in support of an appeal relating to four Supplemental Environmental Impact Reports on the following four projects: 101 Mission Street, One Sansome Street, 655 Montgomery Street, and 160 Spear Street.

The Department of City Planning and the Real Parties in Interest in those four projects have responded in detail to the SFRG Brief in a March 4, 1984 letter from Robert Passmore of the Department of City Planning to the Board of Permit Appeals and in a Joint Brief of Real Parties in Interest dated February 28, 1985 (including the declaration of technical consultant Linda Hausrath, dated February 27, 1985, and annotation of F. C. Dock of Environmental Science Associates, Inc., dated February 26, 1985) and filed with the Board of Permit Appeals (the "Real Parties Brief"). That letter and brief are incorporated herein by reference as a part of the City's response to SFRG's comments on the 299 Second Street DEIR. The SFRG Brief, the Department of City Planning's detailed letter response to it and the Real Parties Brief are available for public review at the Department of City Planning, 450 McAllister Street, Fifth Floor, San Francisco.

Summary Comment. The DEIR is legally defective because it does not adequately analyze the cumulative environmental impacts of reasonably foreseeable probable future projects that will occur in downtown San Francisco. The DEIR does not show the correct time frame for completion of projects that are included in the 1984 cumulative list of projects (SFRG Brief, pp. 1-19.)

Summary Response. The process used to develop the cumulative list of office projects in downtown San Francisco is described in pp. A-31 through A-44 of the EIR. The March 19, 1984 list of projects included as Table C-3 on pp. A-43 through A-44 of the EIR is an expanded version of past lists used for the list-based analysis of cumulative impacts, and included all office and large retail projects proposed, approved, under construction, or recently completed as of that date in the greater downtown areas, which have active applications in the Department of City Planning. The list is in accordance with recent case law interpreting CEQA's cumulative analysis requirements (see SFRG v. City and County of San Francisco (1984) 151 Cal.App.3d 61). The list enables the decision maker to gauge accurately the reasonably foreseeable probable future development in the greater downtown area and to judge the impacts of such development. In order to provide the decision maker with more recent data, set forth below on pp. 217-224 of this Summary of Comments and Responses document is a list of projects updated as of March 22, 1985. The updated list shows a grand total of 20,403,950 net square feet of new office space, an increase of 1,391,080 square feet over the amount contained in Table C-3 in the EIR. This difference represents a 1.7% increase in the total cumulative downtown office building space, including the project; this difference is statistically insignificant at the methodology's \pm 10-15% accuracy rate. Therefore, the cumulative impact analyses as set forth in the EIR are accurate despite recent changes to the list.

SFRG's principal point appears to be that all of the projects on the list will be built by 1990, rather than the mid-1990's, as the EIR and its cumulative impact analysis assumes. SFRG's assumption is incorrect. To use an end-date more precise than the mid-1990's would mislead the decision maker. Impacts occur gradually as projects are built and occupied, not simply on completion of construction. Even if all list projects were constructed by 1990, the vagaries of a cyclical office demand market would not ensure that all impacts would be felt in 1990. For purposes of cumulative impact analysis, impacts occur as additional space created by new projects is absorbed. the absorption concept is an important premise ignored in the SFRG Brief. When new projects are built, additional space is created in the projects themselves or in the buildings that were formerly occupied by tenants relocating to new structures. The additional space created by a project is absorbed only when the project itself is fully occupied and when any vacancies created by the project have been filled. The cumulative development impact analysis puts absorption of the cumulative list projects at sometime in the mid-1990's.

The time frame for absorption of the space shown on the list was determined by comparing forecasts of future employment growth to the amount of employment growth that would be accommodated downtown by the additional space shown on the list. The employment forecasts used were based on extensive economic analysis of the many factors and trends influencing future economic growth and the demand for additional downtown space. Based on this comparison, it was concluded that enough employment growth to absorb the additional space provided by the list of project is expected by the mid-1990's. See Response to Comment A on pp. 190 and 200 of this document. Additionally, a more detailed explanation of the absorption concept is provided in the EIR for the Second and Folsom project, EE81.18, certified 12-19-85, at pages 127-141. That supplemental material is incorporated herein by reference.

Thus, contrary to SFRG's "comment" the list-based cumulative impact analysis is not premised on any assumption that impacts from the projects on the list would not occur until the year 2000. The Draft EIR clearly states that the full impacts resulting from the additional employment which may be accommodated by the projects on the list are expected to occur by the mid-1990's.

SFRG refers to Table 3 (Table 6 in the 299 Street Draft EIR) as support for its erroneous conclusion. This table shows Outbound Regional Transit Demand and level of service, including demand stemming from the employment accommodated by the projects on the list. This Table also shows projected transit capacity. The projects on the list are projected to be absorbed, and the related transit demand is projected to occur, sometime in the mid-1990's. Though the Draft EIR analyzes that additional burden in relation to the transit capacity projected for the year 2000, the minor difference in the projected time frame of the data does not, as SFRG suggests, signify any defect in the analysis. As a prerequisite to preparing the Downtown Plan EIR analysis of cumulative impacts, it was necessary to develop a comprehensive assessment of capacity improvements in transit systems which could be expected to be in place by the years 1990 and 2000. (See Appendix J of the Downtown Plan EIR which sets forth the "transportation Analysis and Methodology." That appendix has been incorporated by reference into the 299 Second Street Draft EIR at page 96.) In analyzing the cumulative impacts on transit systems, the projected capacity for the year 2000 was considered the more appropriate standard for comparison to the list-based demand projected to occur by the mid-1990's. (See Table 6,

page 97 of the 299 Second Street Draft EIR, under the column titled "1984 + Cumulative List".)

There are several reasons why the projected capacity for the year 2000 provides a more realistic basis for analysis of future impacts than do 1990 capacity figures. First, both the capacity projections are conservative ones -- transit agency plans for capacity increases which were determined to be somewhat more speculative were not included in the projected capacities used in the EIR. Second, as explained above, the list-based method uses single-use trip generation rates to estimate demand. Under this method, each trip is treated as if it were a new trip in or out of the downtown, and therefore the total number of peak-hour trips is somewhat overestimated by the use of this method. While the column which presents the impacts of the list-based transit demand in relating to year 2000 capacity projections may slightly understate actual impacts, that assessment is considered to be more accurate than any impact assessment using 1990 capacity projections because comparison to projected 1990 capacity renders a picture of transit impacts which is "worse than worst case," i.e., this approach results in a comparison of overestimated mid-1990's ridership against a conservative estimate of 1990 capacity. Capacity for the year 2000 provides a more realistic basis for comparison to the overestimated mid-1990's ridership.

Though comparison to year 2000 capacity is considered more accurate the same analysis has been performed using 1990 capacity projections to provide a cross-check on the analysis. (See the annotation of F.C. Dock of Environmental Science Associates, Inc., dated February 26, 1985 and incorporated herein by referenced. This annotation is available for public inspection at the Department of City Planning, 450 McAllister Street.) For convenience, the summary table from the Dock Annotation is reproduced on page 216. From this table, it can be seen that the results of the list-based transit impact analyses using the 1990 and year 2000 capacity projection do not differ significantly. Using year 2000 capacity projections, only two MUNI corridors would not meet "acceptable" loadings. The same is true when year 1990 capacity projections are used in the analysis, with the exception that BART transbay loading would slightly exceed BART's "acceptable" loading of 1.5 passengers per seat.

Summary Comment. Even if the DEIR list-based environmental analysis had been accurate, the DEIR does not base its findings on this information, but relies on the Downtown Plan EIR conclusions instead (SFRG Brief, pp. 19-21).

Summary Response. The EIR's environmental analysis does not rely solely on the Downtown Plan EIR forecast approach. The EIR presents environmental impact analyses of cumulative impacts using both the list and the Downtown Plan EIR methodologies. The Downtown Plan EIR analysis is provided in addition to the cumulative development list analysis to supplement the decision maker's available data and information (see EIR, pages 110, 113, 122, 130 and 133). The Downtown Plan EIR represents a major analysis of the current and forecast environmental setting of downtown San Francisco based on an employment and space forecasting model (see EIR, pages 106-112). To exclude its analysis would not be in harmony with CEQA's requirement that all available , relevant information be provided to the decision maker.

Summary Content. The environmental impact analyses and findings of the Downtown Plan EIR cannot be incorporated by reference to satisfy CEQA's requirements for the DEIR because the geographic area analyzed is not the same and the level of analysis of the non-C-3 area is inadequate (SFRG Brief, pp. 21-39).

Summary Response. The EIR does not incorporate by reference geographically inapplicable or incomplete analyses. The Downtown Plan EIR cumulative analysis covers the C-3 district in great detail and areas outside of the C-3 district in lesser, but adequate detail. The list-based method includes projects in the greater downtown area, well beyond the C-3 district boundaries. Both methods are included in this EIR -- either would be sufficient to show a complete analysis of cumulative impacts. A full description of the two methods and their differences is set forth on pages 106-112 of the EIR. See Response to Comment on p. 201 of this document.

Summary Comment. The list-based approach of the Downtown Plan EIR is inaccurate, inadequate and unobjective because the assumptions for the list and the discussion of alternatives in the Downtown Plan EIR obfuscated rather than facilitated the ability of decision makers and the public to make an objective decision. The cumulative list should be adjusted to reflect changing residence and transportation patterns (SFRG Brief, pp. 40-43).

Summary Response. The list-based analysis of cumulative impacts is reasonably accurate and provides one method and set of results enabling the decision maker to gauge objectively and adequately the environmental impacts of all reasonably foreseeable probable future development in San Francisco's greater Downtown area. The Downtown Plan EIR analysis supplements the decision maker's information base. The method used in the EIR list-based analysis is the same as that used in other San Francisco EIRs. The method was reviewed by the courts and was not found lacking; only the amount of development included in the analysis was found to be insufficient (SFRG v. City and County of San Francisco (1984) 151 Cal.App.3d 61). That insufficiency has been remedied in the March 1984 cumulative development list used in the EIR by the inclusion of projects which are under review although not yet approved. The list cannot simply be "adjusted" to reflect changing residence patterns and shifts in modes of transportation. Such an adjustment would involve complex statistical manipulations which would yield an analysis close to the Downtown Plan EIR approach. Even if such an adjustment could be made, it would merely duplicate the Downtown Plan EIR analysis, which is already included. See Response to Comment on p. 201 of this document.

OUTBOUND P.M. PEAK-HOUR AND PEAK-PERIOD TRANSIT RIDERSHIPS, PASSENGERS PER SEAT RATIOS (P/S) AND LEVELS OF SERVICE (LOS) AT REGIONAL AND C-3 DISTRICT SCREENLINES

Transit Agency	1984			1990			1984+CUMULATIVE LIST (Using 1990 Capacity)			2000			1984+CUMULATIVE LIST (Using 2000 Capacity)		
	Demand(d)	P/S	LOS	Demand	P/S	LOS	Demand	P/S	LOS	Demand	P/S	LOS	Demand	P/S	LOS
<u>P.M. Peak Hour</u>															
Muni (g)	7,100	1.16	D	7,900	1.13	D	8,700	1.25	D	8,800	1.05	D	8,800	1.04	D
	8,200	1.26	E	9,200	1.26	E	12,900	1.77	F	10,100	1.25	D	10,100	1.59	F
	13,300	1.45	E	15,100	1.44	E	17,500	1.67	F	16,600	1.42	E	16,600	1.50	E
	5,300	1.06	D	6,200	1.03	D	6,400	1.08	D	7,400	1.01	D	7,400	0.88	C
BART	16,100	1.53	F	20,500	1.42	E	21,900	1.08	D	27,900	1.42	E	27,900	1.12	D
	7,700	1.10	D	8,800	1.26	D	10,200	1.47	E	10,100	1.06	D	10,100	1.07	D
AC Transit	9,100	0.94	C	10,500	1.08	D	11,300	1.16	D	10,500	1.08	D	10,500	1.16	D
GGT Bus	5,300	1.00	C	6,600	0.86	C	6,800	0.88	C	8,500	0.91	C	8,500	0.73	B
GGT Ferry	800	0.57	B	1,100	0.28	A	1,100	1.07	A	1,500	0.38	A	1,500	0.28	A
Tiburon Ferry	200	0.40	A	200	0.40	A	200	0.52	B	300	0.60	B	300	0.40	A
SamTrans	1,900	1.12	D	2,400	1.20	D	2,300	1.18	D	3,100	1.19	D	3,100	0.88	C
CalTrain (SPRR)	3,100	0.61	B	4,000	0.65	B	3,800	0.61	B	4,900	0.79	C	4,900	0.61	B
<u>P.M. Peak Period</u>															
Muni (g)	12,600	1.06	D	13,900	1.01	D	15,200	1.11	D	15,500	0.95	C	15,500	0.93	C
	13,100	1.13	D	14,100	1.07	D	20,600	1.56	F	15,300	1.05	D	15,300	1.41	E
	23,300	1.31	E	26,000	1.29	E	29,800	1.49	E	28,700	1.29	E	28,700	1.34	E
	9,100	1.00	C	10,300	0.95	C	11,000	1.02	D	12,100	0.88	C	12,100	0.80	C
BART	25,800	1.54	F	32,600	1.42	E	35,200	1.53	F	44,100	1.40	E	44,100	1.12	D
	11,300	0.80	C	12,800	0.91	C	15,400	1.09	D	14,600	0.77	C	14,600	0.81	C
AC Transit	14,000	0.95	C	17,000	1.16	D	17,500	1.19	D	17,000	1.16	D	17,000	1.19	D
GGT Bus	7,600	0.90	C	9,500	0.77	C	10,000	0.80	C	12,200	0.81	C	12,200	0.67	B
GGT Ferry	1,000	0.56	B	1,400	0.27	A	1,500	0.29	A	1,700	0.33	A	1,700	0.29	A
Tiburon Ferry	300	0.60	B	400	0.80	C	400	0.90	C	500	1.00	C	500	0.80	C
SamTrans	2,900	1.12	D	3,400	1.13	D	3,600	1.20	D	4,500	1.15	D	4,500	0.92	C
CalTrain (SPRR)	4,500	0.68	B	5,200	0.64	B	5,500	0.69	B	6,200	0.77	C	6,200	0.68	B

SOURCE: Environmental Science Associates from Table IV.E.2 of the Downtown Plan EIR

TABLE C&R 1

DEVELOPMENT OF THE LIST OF PROJECTS TO BE USED IN THE LIST-BASED ANALYSIS OF CUMULATIVE OFFICE DEVELOPMENT IN DOWNTOWN SAN FRANCISCO

The attached list of office and retail projects was prepared as a background document for a land-use-based method of analyzing cumulative impacts. A land-use-based cumulative analysis is one of the two methods of cumulative analysis suggested by the CEQA Guidelines (Section 15130(b)(1)(A)), whereby a list of related projects is used to determine the combined effects of the whole and to determine the contribution of the proposed office or retail project to the overall cumulative effect. This is only one method of determining cumulative impacts. The other method of determining cumulative impacts is an analysis based on estimates of total employment projected for the area. This latter method is permitted by CEQA Guidelines Section 15130 (b)(1)(B) if the employment projections are based on an appropriate planning document.

The attached cumulative list is an updated version of past lists and includes all office and large retail projects proposed, approved, under construction and recently completed in the greater downtown area which have active applications in the Department of City Planning. This list is appropriate for use only in a land-use-based analysis of the cumulative impacts of office and retail projects in the greater downtown.

Relevant San Francisco Redevelopment Agency projects have been included on the list. Where single buildings or sites are involved they are listed by Assessor's Block. Larger projects covering several blocks are at the end of each list. Redevelopment Agency projects for which no developer participation agreement has been signed are listed as "under formal review." Those for which developer participation agreements have been signed are listed as "approved."

The 621,000 square feet of office space listed as "under formal review" in the Yerba Buena Center Redevelopment Area includes 460,000 s.f. in a project at the northeast corner of Third and Mission Streets, 40,000 s.f. in a project at the northwest corner of Fourth and Clementina, 85,000 s.f. at the northeast corner of Lapu-Lapu and Harrison, and 36,000 s.f. at the southeast corner of Third and Harrison. The 1,250,000 s.f. of office and 201,000 s.f. of retail listed as "approved" in Yerba Buena Gardens includes 750,000 s.f. of office and 100,000 of retail in a project on Market Street between Third and Fourth Streets, 500,00 s.f. of office and 10,000 s.f. of retail at the southeast corner of Third and Mission, 80,000 s.f. of retail in a project bounded by Mission, Howard, Third and Fourth Streets, and 11,000 s.f. of retail in a project bounded by Howard, Folsom, Third and Fourth. The 480,000 s.f. identified as "approved" in Assessor's Block 3735 includes two projects, 95 Hawthorne with 360,000 s.f. of office and the 120,000 s.f. PacTel project at the northeast corner of Third and Folsom. (Source: Mike Mann, San Francisco Redevelopment Agency)

The 635,000 s.f. of office and 185,000 s.f. of retail space shown on the list as "approved" in the Rincon Point/South Beach project includes 450,000 s.f. of office and 120,000 s.f. of retail space on the Rincon Annex site on Mission

Street between Steuart and Spear Streets (Site B), 35,000 s.f. of office and 5,000 s.f. of retail space in a project at Beale and Bryant Streets (Site D) and 150,000 s.f. of office space and 60,000 s.f. of retail space in a project bounded by Brannan, Townsend, Kelly and First Streets (Site I). (Source: Barbara Amato, San Francisco Redevelopment Agency)

Other jurisdictions were also contacted. The 293,300 s.f. State Office Building under construction at Van Ness and McAllister and the proposed 226,880 s.f. State Office Building at Larkin and Golden Gate are included on the list. No new federal office space is currently proposed in downtown San Francisco. (Source: Molly Brand, General Services Agency)

Hotel projects have not been included in the list because hotel uses have different peaking characteristics from office buildings and generally do not significantly affect peak-hour traffic or transit. Therefore they do not contribute to effects such as maximum production of air pollutants (see 135 Main Final Supplemental EIR, EE81.61, certified November 30, 1982, p.150). Residential projects have not been included for a number of reasons. Residential uses are extremely limited in the study area and generally are unrelated to office uses. Residential travel in the downtown usually takes place in the contra-commute direction during peak hours and thus does not contribute to cumulative traffic or transit congestion. In addition, office trips in the p.m. peak period are assumed to be made by workers traveling to their residences, while trip generation calculated for residential uses includes persons returning to their homes after work during the p.m. peak. Including residential uses in the cumulative analysis would double count some travel generated by projects on the list: once when employees left their office buildings and again when they arrived at their downtown residences.

Approximately 1.4 million square feet of office space has been proposed or recently approved for locations outside the greater downtown area. There are six projects over 10,000 square feet. San Francisco Executive Park, just east of U.S. 101 near the southern border of San Francisco, is proposed for about 1.1 million square feet; St. Mary's Medical Office Building on Shrader at Fulton is proposed at 90,000 s.f.; the Nineteenth and Taraval project would contain 27,400 office s.f.; a conversion of an existing building at 2185 Folsom would contain 31,500 s.f. of office space; a 70,000 s.f. medical office building is proposed at Mt. Zion Hospital; the proposed mixed-used project at California and Steiner Streets would contain 19,000 s.f. of office space. A number of smaller projects containing new office space is also proposed. Projects outside of the greater downtown are not included on the cumulative list because their impacts do not accumulate measurably with office space in the downtown area. Although the Executive Park proposal would contribute to the auto traffic on U.S. 101, the critical analysis points for p.m. peak-period cumulative downtown traffic on U.S. 101 are the freeway entrances near downtown, the approaches to the Bay Bridge, and the Alemany interchange which restricts southbound U.S. 101 traffic in the p.m. peak period. Executive Park traffic would not contribute measurably to peak demands on freeway entrances near downtown or peak direction at peak period on the Alemany interchange, and is factored in as part of the traffic approaching the Bay Bridge before cumulative downtown development is added.

The Department's Master Project Log contains listings for projects which are no longer active for various reasons, such as no action by project sponsor in over one year, application withdrawn by sponsor, or project proposal revised to non-office or non-retail uses. Some of these files have not been formally closed due to other higher staff priorities; however, the projects are not included on the cumulative list when staff assigned have concluded that the office project has been abandoned or withdrawn, or the scope or nature of the proposal is so uncertain as to be not reasonably foreseeable. Examples include 98 Battery Street (83.420ED), withdrawn by sponsor, 1361 Bush Street (81.667ED), now a medical facility, Welsh Commons (EE81.59) now a residential-retail project.

In EIRs prepared during the latter half of 1983, the list used for cumulative analyses included a section labeled "Completed But Not In Base Case." As of the end of 1983, that list totaled over 6 million s.f. of office space and about 225,000 s.f. of retail space. These projects were included on pre-1984 lists even though they were built and fully or partially occupied because some of the baseline data (measurements of the existing situation) for some transportation systems were collected before these projects were completed. The baseline data have recently been updated to include projects completed and occupied up to 1984 for use in the Downtown Plan EIR. Using 1984 as the existing baseline situation means that buildings completed by the end of 1983 should be omitted from the list of projects used for cumulative analysis in order to avoid counting effects of these projects twice.

The Department is aware of proposals by Santa Fe Pacific Realty Corporation (formerly Southern Pacific Land Co.) to develop property near China Basin. This area and the proposals by Santa Fe Pacific have been called "Mission Bay." An application for environmental review was filed for the project but was withdrawn in early 1984 and no new application has been filed. After withdrawal of this application, members of the San Francisco Board of Supervisors proposed that the City purchase all or portions of the property; this proposal was later dropped. In July, 1984, the project sponsor announced major revisions in its proposal reducing the scope of the development proposal. No new applications have been filed. Both the original project and the July 1984 proposal would require environmental analyses and Zoning Map and Comprehensive Plan amendments, and BCDC and possibly U.S. Army Corps of Engineers permits in addition to City approvals before any building could begin. The Board of Supervisors and the City Planning Commission have recently accepted a gift from Santa Fe Pacific for further study of potential development of the Mission Bay site (resolutions 345-85 and 10254, respectively) Neither resolution contained any endorsement by the Board or the Commission of any specific proposals for the site. With no application pending, and with the possibility of further revisions by the developer before submittal of any application, the Mission Bay project remains too speculative to include in any cumulative analyses.

The Department of City Planning is in the process of preparing plans and environmental analyses for several areas in or near the downtown. Because these plans involve only proposals for zoning and other land use controls, they are not properly part of any cumulative list. Although analyses for these plans sometimes predict amounts of office space that could be built in the area being studied, the predictions are for purposes of assessing impacts of the plans and in no way reflect proposed future development.

Use of the Department's list for estimating cumulative impacts builds in certain limitations. It assumes, for example, that all proposals will be built at essentially the size proposed and that all buildings once built will be fully occupied. It is important to note that the cumulative list cannot be adjusted to reflect temporary limitations on growth impacts caused by City actions or policies, such as the Special Use District in the South of Market, the Downtown Plan Interim Controls or the proposed moratorium on new office projects containing over 50,000 sq. ft. Nor has any adjustment been made to account for reduced building potential as proposed in the Downtown Plan (base FAR of 14:1 reduced to 10:1). Thus, the total square footages on the list of projects under formal review may be overestimated, and impacts based on the square footages may also be overestimated, if some buildings are not built, not fully occupied, or reduced in size.

TABLE 1 COMMENTS & RESPONSES

PROJECTS TO BE USED FOR LIST-BASED CUMULATIVE IMPACT ANALYSIS
IN DOWNTOWN OFFICE PROJECT EIRS
-March 22, 1985-

Block	Case No.	Project Name	Office		Retail	
			(Gross Sq. Ft.)		(Gross Sq. Ft.)	
			Total	Net	Total	Net
			New	New	New	New
60	84.230E	Lombard Plaza	75,000	75,000		
110	82.129E	1000 Front	139,000	139,000	3,000	3,000
112	83.447EA	1100 Sansome/150 Green	60,210	53,210	6,050	6,050
142	84.517E	998 Sansome	26,670	24,720		
192	83.412ED	1055 Stockton			81,500	66,500
195	84.533E	Columbus, Jackson, Kearny	187,150	175,000	19,500	16,380
229	83.222EC	Embarcadero West	611,000	589,000	60,000	60,000
239	85.79E	343 Sansome	373,000	279,800	9,000	9,000
267	84.432E	235 Pine	143,000	143,000	6,000	6,000
312	85.21EC	720 Market	43,000	43,000	6,000	6,000
347	STATE	State Office Building	226,880	226,880		
691	84.451E	1200 Van Ness	40,240	38,300	65,600	61,400
740	85.22E	619 Larkin	2,910	2,910	1,960	1,960
814	81.540E	101 Hayes	132,000	132,000	6,000	6,000
816	84.530E	210 Fell	64,530	49,530	12,120	2,490
837	81.5V	Page Plaza (C)	26,160	26,160		
3512	84.448E	Van Ness Gateway Center	459,670	459,670	39,960	39,960
3520	84.582F	1489 Folsom (C)	9,000	9,000	3,000	3,000
3526	83.475V	530-550 9th	42,300	42,300		
3702	83.196E	1169 Mkt, Trinity	820,000	805,000	40,000	40,000
3703	84.539E	1035-45 Market (C)	70,000	60,000	30,000	-60,000
3705	85.73E	55-5th Street (C)	52,430	47,590	41,950	31,150
3708	84.455E	2nd/Stevenson	292,000	292,000	8,000	8,000
3721	84.403	535 Mission	427,000	360,000	4,000	-4,780
3721	83.331E	100 First @ Mission	348,920	342,000		
3721	84.199E	524 Howard	270,000	270,000	4,430	4,430
3735	83.313E	35 Hawthorne	47,400	47,400	2,900	2,900
3736	84.358E	201 2nd @ Howard	29,300	29,300	4,900	4,900
3736	83.311E	299 2nd @ Folsom	267,760	232,760	15,580	13,630
3744	84.41E	Hills Bros (C)(M)	635,000	535,000	40,000	40,000
3747	85.58E	300 Beale (C)(M)	130,670	130,670	4,700	4,700
3749	83.464EV	50 Guy Place	17,500	17,500		
3761	84.299E	220 Harrison			10,000	10,000
3769	83.213EV	59 Harrison (C)	113,500	49,750		
3786	84.504E	340 Townsend	48,000	48,000	1,300	1,300
3788	82.352EV	640 2nd	39,100	37,400		
9900	SFRA	Rincon Point/S.Beach	65,000	65,000	20,000	20,000
many	SFRA	YBC (misc. bldgs)	621,000	621,000		
			=====	=====	=====	=====
TOTAL UNDER FORMAL REVIEW			6,956,300	6,498,850	547,450	403,970

Projects Approved, Not Yet Under Construction
-March 22, 1985-

Block	Case No.	Project Name	Office (Gross Sq. Ft.)		Retail (Gross Sq. Ft.)	
			Total New	Net New	Total New	Net New
59	83.177E	1620 Montgomery	82,270	45,390		
113	82.418EVAD	1171 Sansome	22,000	22,000		
130	83.612C	1558 Powell	2,500	2,500		
136	83.476V	962 Battery	15,000	15,000		
176	82.368E	900 Kearny	25,000	25,000	5,000	5,000
194	83.128E	732 Washington	17,500	17,500	11,240	11,240
225	81.403ED	814 Stockton	3,500	3,500	3,300	3,300
227	82.463E	505 Montgomery	314,000	287,400	12,100	-4,780
236	82.511E	222 Front	20,800	13,940	3,250	-0-
271	83.13E	582 Bush	18,100	18,100	800	800
288	83.148E	665 Bush (M)	12,400	2,600		-2,700
294	82.87D	44 Campton Place	7,600	7,600		
309	83.333E	212 Stockton	32,220	15,890	21,700	16,200
326	83.86E	156 Ellis	3,200	3,200		
327	82.445E	Stockton/O'Farrell	43,300	25,750	57,950	28,000
336	83.21ECV	440 Turk	25,000	8,150		
671	82.24V	1581 Bush (C)	16,000	16,000		
3702	81.549ED	1145 Market	137,500	108,500	8,000	8,000
3705	83.314E	5th and Market	535,000	535,000	120,000	40,000
3705	80.315	Apparel Mart III	332,400	332,400		
3706	84.599D	799 Market @ 4th (C)	98,400	48,800	53,230	-48,800
3708	83.75E	49 Stevenson	169,600	136,900	9,800	-2,900
3735	SFRA	Yerba Buena Center	480,000	480,000		
3750	82.241E	600 Harrison	228,000	228,000	10,000	10,000
3750	82.77V	642 Harrison (C)	54,400	45,900		
3789	81.552EV	625 2nd/Townsend (C)	157,000	157,000		
3794	82.416EV	155 Townsend	19,000	19,000		
3803	81.244D	China Basin Expansion	196,000	196,000		
9900	81.63E	Ferry Building Rehab	309,500	97,500	163,500	124,000
many	SFRA	Yerba Buena Gardens	1,250,000	1,250,000	201,000	201,000
many	SFRA	Rincon Point/S.Beach	635,000	635,000	185,000	185,000
			=====	=====	=====	=====
TOTAL APPROVED			5,262,190	4,799,520	865,870	573,360

Projects Under Construction
March 22, 1985

Block	Case No.	Project Name	Office (Gross Sq. Ft.)		Retail (Gross Sq. Ft.)	
			Total New	Net New	Total New	Net New
58	82.234E	Roundhouse (C)	45,000	45,000	3,000	3,000
65	82.168V	990 Columbus	12,000	12,000		
112	81.258	Ice House (C)	209,000	209,000		
136	81.243E	955 Front/55 Green..	50,000	50,000		
143	81.353ED	1000 Montgomery (C)	39,000	39,000		
146	83.99EC	644 Broadway	42,800	42,800		
161	DR80.191	Mirawa Center	36,000	36,000	30,650	30,650
164	81.583D	50 Osgood Place	22,500	22,500	9,100	9,100
166	DR80.15	750 Battery	105,400	105,400	12,800	12,800
166	CU81.7	222 Pacific at Front (C)	142,000	142,000		
167	SFRA	Golden Gateway III	103,000	103,000		
176	81.673EACV	Columbus/Pacific(Savoy)	49,000	49,000	22,000	22,000
176	83.229E	801 Montgomery	31,800	31,800	6,200	6,200
208	81.104EDC	Washington/Montgomery (M)	235,000	233,300	4,000	-1,200
227	EE80.296	Bank of Canton	230,500	177,500		-800
239	DR80.1	456 Montgomery	160,550	160,550	24,250	24,250
240	81.705ED	580 California/Kearny	329,500	260,000	6,500	6,500
261	81.249ECQ	345 California (M)	640,000	466,500	15,500	15,500
262	81.206D	130 Battery	41,000	41,000		
265	81.195ED	388 Market at Pine (M)	234,500	85,500	10,000	-8,500
268	81.422D	250 Montgomery at Pine	105,700	65,700	8,000	8,000
270	81.175ED	466 Bush	86,700	86,700	7,800	2,200
271	81.517	453 Grant	27,500	27,500	6,200	6,200
288	81.461EC	333 Bush (Campeau)(M)	498,400	458,100	20,900	20,900
288	81.687ED	222 Kearny/Sutter	150,000	49,950	10,000	-8,400
288	DR 80.24	101 Montgomery	264,000	234,000	4,900	-14,100
289	81.308D	One Sansome	603,000	603,000	7,000	7,000
311	82.120D	S.F. Federal	246,800	218,850	1,600	-9,440
351	DR79.24	Mardikian/1170 Market	40,000	40,000		
641	82.200CV	1735 Franklin (C)	8,600	8,600		
642	83.218V	1699 Van Ness	20,000	20,000		
642	82.224VEC	1750 California	82,530	82,530		
672	SFRA	Wealth Investments	104,500	104,500		
690	SFRA	Post/Van Ness	60,000	60,000	20,000	20,000
716	81.581ED	Polk/O'Farrell (M)	61,600	61,600	22,400	22,400
743	SFRA	Van Ness/Turk (Vanguard)	85,000	85,000		
767	STATE	State Office Building	293,300	293,300		
818	83.94EV	583-591 Hayes (C)	4,900	4,900		
834	82.603E	25 Van Ness (C)	101,800	42,800	36,400	36,400
3504	82.137V	44 Gough	30,000	30,000		
3512	82.14	Van Ness Plaza	170,000	170,000	6,000	6,000
3704	83.404	901 Market (C)	145,500	126,000	80,000	80,000
3707	81.492ED	90 New Montgomery	124,300	124,300	3,350	3,350
3707	81.245DA	New Montgomery Pl.	227,500	209,700	2,200	-3,900
3708	81.493ED	71 Stevenson	324,600	324,600	6,200	6,200
3709	81.113ED	Central Plaza	353,100	136,300	17,400	17,400

Projects Under Construction (Continued)

3715	82.16EC	121 Steuart	33,200	33,200		
3715		141 Steuart	80,000	80,000		
3715	SFRA	Rincon Pt. Site A	79,000	79,000	11,000	11,000
3717	81.183E	123 Mission	342,800	342,800		
3717	82.82D	135 Main	260,000	260,000	4,000	4,000
3717	EE79.236	101 Mission	219,350	219,350		
3717	EE80.349	Spear/Main (160 Spear)	279,000	279,000	7,600	7,600
3722	81.417ED	144 Second at Minna	30,000	30,000		
3724	81.102E	Holland Ct. (C)	27,850	27,850		
3729	82.86D	774 Tehama	5,800	5,800		
3733	82.29E	832 Folsom	50,000	50,000		
3738	DR80.5	315 Howard	294,000	294,000	3,200	3,200
3741	82.203C	201 Spear	229,000	229,000	5,200	5,200
3749	EE81.18	Marathon - 2nd/Folsom	686,700	686,700	35,300	35,300
3764	82.591E	Second St. Sq. (C)	333,000	263,000	25,000	25,000
3775	81.147V	338-340 Brannan (C)	36,000	36,000		
3787	81.306	252 Townsend at Lusk	61,000	61,000		
3794	83.545V	139 Townsend	51,200	50,000		
3794	81.569EV	123 Townsend	104,000	49,500		
3923	81.491EVF	1550 Bryant	80,600	49,600		
			=====	=====	=====	=====
TOTAL UNDER CONSTRUCTION			10,260,380	9,105,580	495,650	411,010
GRAND TOTAL ALL PROJECTS			22,478,870	20,403,950	1,908,970	1,388,340

(C) - Conversion (generally industrial and/or warehouse to office)

(M) - Mixed Use (office/residential/commercial)

This list was developed solely for the process of assessing the environmental impacts of proposed new office projects in downtown San Francisco. The list includes all projects for which an application has been received and which are not part of the baseline. The baseline is current to 1984. Because no later baseline has been established, this list may identify as "under construction" projects which have been completed and substantially occupied since March 1984.

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In accordance with the requirements of CEQA, the Downtown Plan EIR considered alternatives to the Downtown Plan in Section VII of the Downtown Plan EIR. The Downtown Plan and its possible alternative are not at issue in the 299 Second Street EIR. The City Planning Commission on November 29, 1984 certified the Downtown Plan EIR as adequate and complete. It remains the judgment of the City Planning Commission that the Downtown Plan alternatives were adequately presented and analyzed in the Downtown Plan EIR.

Summary Comment. The forecast of potential growth in downtown San Francisco in the Downtown Plan EIR is based on a flawed model (SFRG Brief, pp. 44-45).

Summary Response. The Downtown Plan EIR economic model for forecasting Downtown growth makes reasonable assumptions and is an appropriate model for gauging and evaluating the reasonably foreseeable probable future growth of Downtown office development. See Response to Comment on p. 200 of this document.

Summary Comment. The Department of City Planning improperly continues to omit Mission Bay from the EIR's consideration of cumulative development, despite Mayoral and developer support for the proposed project (SFRG Brief, p. 46).

Summary Response. The Department of City Planning has received no application requesting action on any part of Mission bay. Mayoral and developer support for some kind of development in that area does not initiate the City's review process: applications must be filed, environmental analyses prepared, the General Plan and zoning districts fundamentally revamped to accommodate the concept, and specific approvals obtained from the City and from the State and Federal agencies such as the Bay Conservation and Development Commission and the U.S. Army Corps of Engineers. Further, the Downtown

Plan EIR does not ignore Mission Bay, but notes that due to the timing of such a massive project, it is unlikely that the major effects of the development would be felt in the C-3 District before the year 2000. Such effects can be addressed if and when the City considers, reviews and approves any aspect of a Mission Bay proposal.

Summary Comment. The Department is continuing to obscure information from the public by omitting projects from the cumulative impacts analysis by juggling definitions and by hiding important ideas in meaningless jargon (SFRG Brief, pp. 47-48).

Summary Response. The EIR is a lengthy document which addresses many issues, sometimes in an appropriately technical fashion. It provides complete analysis and review of every relevant issue. The EIR contains a summary (pp. 1-9) and numerous figures and tables (see pages i-iv) to assist readers. It includes all relevant projects in its cumulative impact analysis. Wherever comments have been addressed the difficulty of any specific section of analysis, the analysis has been clarified. The resulting EIR is a straightforward and complete document which satisfies CEQA's requirement of providing the decision maker with a thorough analysis of environmental impacts. See Response to Comment on page 200 of this document.

C. SFRG COMMENTS ON DOWNTOWN PLAN EIR DATED MARCH 6, 1985 SUBMITTED TO THE BOARD OF PERMIT APPEALS AS EXHIBIT SFRG-28

Though SFRG originally indicated that Exhibits SFRG-27 through SFRG-35 were incorporated by reference, the Department of City Planning believes that only Exhibit SFRG-28 has any apparent relevance to the 299 Second Street EIR. The Department of City Planning indicated to SFRG its belief that these other Exhibits were not relevant to 299 Second Street in a letter from Barbara Sahm to SFRG dated April 22, 1985.

In its response, by letter dated April 30, 1985 from Georgia Brittan to the Department of City Planning, SFRG indicated that Exhibits SFRG 33 through 36 should also be incorporated, though no indication was given as to the relevance of these documents. As SFRG indicated no objection, no response to the materials in Exhibits SFRG-27 and SFRG-29 through 32 is included here.

Summary Comments and Responses are included below relating to Exhibit SFRG-28. A general description of the materials contained in SFRG Exhibits 33 through 35 and a discussion of the Department of City Planning's position as to the material in those exhibits are also provided below.

SFRG Exhibit 28 was originally submitted to the Board of Supervisors at the March 5, 1985 hearing of the Planning, Housing and Development Committee in connection with the Downtown Plan. It was then included as an exhibit to SFRG's brief to the Board of Permit Appeals (also incorporated by reference as a comment on the 299 Second Street DEIR) along with Exhibits 32-36. All of these exhibits were submitted to the BPA on March 6, 1985, the date of the hearing. The Department of City Planning prepared a detailed response to SFRG's March 5 testimony (Exhibit 20) for the Planning, Housing and Development Committee submitted March 19, with additional information provided to the committee on May 7. Both the SFRG Exhibits and the City's March 19, and May 7 responses are incorporated by reference and summarized below; they are available for public review at the Department of City Planning, 450 McAllister Street, San Francisco.

a. Comments from Exhibit SFRG-28

Summary Comment. The Downtown Plan EIR did not take into account the development in the downtown San Francisco non-C-3 area: (Exhibit SFRG-28, pp. 3-7.)

Summary Response. The employment growth expected in the rest of downtown, and in other areas of the City and Bay Area was an essential component of the C-3 District employment and residence patterns analyses and provided the context for these discussions. The analysis of employment outside the C-3 District was not prepared at the same depth as was the C-3 District forecast and was quantified only as order-of-magnitude estimates. However, at that level, the numbers of employed persons in the future equals the number of regional jobs expected in the future and thus the analysis recognizes that all growth will be in competition for regional jobs, housing and other facilities. The basis for these general quantifications is the Association of Bay area Government's regional forecasts, with the larger forecasts for San Francisco employment growth included from the EIR. Thus, both the housing and transportation analyses in the Downtown Plan EIR account for the demands resulting from employment growth outside the C-3 District.

None of the estimates of growth outside the C-3 District used in the Downtown Plan EIR are precise, detailed forecasts comparable to those prepared for the C-3 District. However, when dealing with these broad-based contexts for the long-term future, precision is neither necessary nor appropriate. Therefore, as noted in the Downtown Plan EIR, the estimates do not account for policy changes in or outside San Francisco other than those proposed for the C-3 District. The estimates for growth in the greater downtown area outside the C-3 District interim controls, the downzoning in the North of Market, nor the downzoning being studied for long-term controls in Chinatown and South of Market. (See the Downtown Plan EIR, pp. IV.C. 48-49 and March 19 Report, Part II, pp. 4-5.) See Response to Comments B.3.

With regard to the Downtown Plan EIR forecasts of growth in non-C-3 District areas, estimates were derived for purposes of describing background growth and estimating indirect impacts of C-3 District growth on surrounding areas. The estimate for the rest of the greater downtown is not a forecast of what is expected to occur, but, rather, describes a scenario of potential future growth during a certain time period, assuming that growth is allowed and encouraged by City policies in these areas. Currently, there is uncertainty about future policies in these areas since those in some areas have recently been revised and proposals for policy changes in other areas are now under review. (The changes which have been adopted or that are now under review tend to limit the growth allowed in these nearby areas.)

In their comments on other EIRs (e.g., see Second & Folsom FSEIR, EE81.18, at page 164), SFRG has estimated a growth of 46,000 jobs in the greater downtown area outside the C-3 District, which is somewhat higher than the estimate upon which the Downtown Plan EIR discussion, described above, is based (an amount closer to growth of 40,000 jobs). Whatever the number, however, it is important to understand what it represents and how it is used in the Downtown Plan EIR and this EIR.

The Downtown Plan EIR discussion of where most future citywide employment growth could occur describes the greater downtown area, approximately defined as south to China Basin, including Showplace Square and Mission Bay, Civic Center, the Washington/Broadway Special Use District, the Northeast Waterfront, and the rest of Chinatown. Employment growth in the general magnitude of 40,000 could occur

throughout the larger area (depending on City policy in these districts), according to the Downtown Plan EIR analysis. Most people would not describe Civic Center and the Northeast Waterfront as "near the Caltrain Terminal" or China Basin and Mission Bay as "immediately adjacent to the C-3 District." The Downtown Plan EIR cannot be used to imply that all 46,000 are in the vicinity of the Caltrain terminal on the one hand, or on the other, within the blocks immediately adjacent to the C-3 District.

In the Downtown Plan EIR, historic trends are associated only with parts of the non-C-3 component of the transportation analysis. To estimate future growth in non-C-3 travel, historic growth rates in travel at certain screenline locations were developed from data collected over the 5-year period from 1977 to 1982, a period of high growth in downtown San Francisco. These growth rates measured growth in total travel at each of the analysis screenlines. Total travel at the screenlines is comprised of C-3 and non-C-3 components and includes non-San Francisco-based travel at the appropriate screenlines. This overall growth rate was then applied to measured non-C-3 travel only, to estimate future non-C-3 travel volumes, which were then combined with future C-3 travel volumes, estimated on the basis of the C-3 District employment forecasts. Use of the historic growth rate in total travel to describe future non-C-3 growth in travel assumes that non-C-3 travel would grow in the future at the same rate that C-3 plus non-C-3 travel grew in the past.

The historical trends used were for total travel measured at screenlines. Because of the location of the screenlines, the trends correspond to regional, citywide, or greater downtown travel growth depending on the system. To infer that the trends are Bay Area-wide is to ignore the location of the data-gathering points (i.e., the screenlines). Many of the transit screenlines, even for regional transit systems, are inside the greater downtown area and thus cannot even remotely measure Bay Area-wide trends. The freeway screenlines could be characterized as regional but the locations are such that they reflect citywide trends more than regional trends.

This is reasonable because, as travel from San Francisco gets further from the City, it becomes increasingly diluted by other regional travel. At the Caldecott Tunnel in the East Bay, for example, C-3 District travel is a considerably smaller proportion of the total peak-hour travel than at the Bay Bridge. The same is true for travel on U.S. 101 southbound and U.S. 101 northbound. The screenlines were chosen to pick up the greatest

portion of cumulative travel from San Francisco, not necessarily the majority of traffic in the Bay Area.

Summary Comment. The Downtown Plan EIR transit and transportation analyses do not include an adequate estimate of future non-C-3 travel. The use of historic trends to estimate non-C-3 impacts at the regional screenlines vastly underestimates the travel demand that will result from employment in these areas. SFRG calculates that almost no additional non-C-3 riders are forecast in the Downtown Plan EIR for BART, AC Transit, Golden Gate Ferry or Tiburon Ferry. (Exhibits SFRG-28, pp. 8-13a.)

Summary Response. The Downtown Plan EIR includes appropriate forecasts of travel generated by employment growth outside the C-3 District in the transportation analyses. There are some basic facts about the EIR transportation analyses that are important to an understanding of how the non-C-3 travel was covered:

- The transportation analysis is performed with a computerized mathematical model which is based upon actual measured travel. When data from the Survey of C-3 District employees in 1981-82 is loaded into the model, the travel information results are approximately identical to actual total travel at the measuring points (screenlines) as measured by the various transportation agencies. Thus, the model accurately reports total travel at the screenlines. (See the Downtown Plan EIR p. IV.E.2, Appendix J, pp. J.11-15, and Responses Section E.1.2, p. C&R-E.6.)
- The growth rate applied to identifiable non-C-3 travel component was based on the total growth over the 5-year period from 1977 to 1982 at the particular screenline in question. That overall growth rate was used only on measured non-C-3 travel to arrive at future non-C-3 travel volumes, while future C-3 travel was based on the employment forecasts for the C-3 District in the future. Because the non-C-3 growth rate was based on total travel at screenlines, use of that rate to describe future non-C-3 travel assumes that non-C-3 travel would in the future grow at the same rate as C-3 plus non-C-3 grew in the past. Contrary to SFRG's comment, this methodology probably overstates non-C-3 travel which can be expected in the future.

- The portion of travel labeled "C-3 travel" in many cases also includes some non-C-3 travellers. As explained in Appendix J to the Downtown Plan EIR, in some cases it was not possible to separate C-3 and non-C-3 travellers reflected in the totals. (See Downtown Plan EIR, pp. J.20-25.) When this was the case, C-3 travel was emphasized in order to show C-3 District impacts in the most conservative light. For example, although BART ridership includes a non-C-3 component, the C-3 component includes all riders who enter the system at the Market Street stations. Obviously, some travellers using one of the four Market Street stations actually work south of Folsom or in Chinatown or on Van Ness Avenue. Because some non-C-3 travellers are included in the C-3 numbers, the non-C-3 component is underreported but the total of C-3 and non-C-3 remains accurate (see Appendix J, p. J.23).

- The transportation screenlines were established at maximum load points when possible, where they would illustrate greatest C-3 District impacts. They are therefore located such that, unlike a cordon count, they do not include all travellers from the entire greater downtown in all cases (e.g., Muni SE counts were made in the mid-South of Market area as shown on Fig. IV.E.1., p. IV.E.6 in the Downtown Plan EIR). They are also located such that, in many cases, travellers have left the system prior to the screenline, having reached the stop near a store, a restaurant, their home or some other destination point. Thus, absolutely all travellers cannot be included in the totals. (If a cordon-type analyses had instead been chosen, the measuring locations could have been established to include the entirety of the greater downtown on all transportation systems, but many maximum-impact measuring points would have been missed with this method. In addition, the 5 years worth of data necessary to establish growth rates for portions of the analysis would not have been available at some locations along the cordon boundary.)

The transportation analysis in the Downtown Plan EIR has two major components -- one that makes specific projections of C-3 District travel demand and another that makes non-specific estimates of non-C-3 travel demand at a series of discrete (unique) locations [the sub-regional "screenlines" or measuring points listed in Tables IV.E.2 and IV.E.3, pp. IV.E.29 and IV.E.35 and shown in Figures IV.E.1 and IV.E.2, pp. IV.E.6 and IV.E.11 of the

Downtown Plan EIR (all citations are to the Downtown Plan EIR unless otherwise noted)]. The C-3 travel estimates are built upon a comprehensive data base for the C-3 District, using the C-3 Employer/Employee Surveys and the forecasts developed in the employment and residence patterns analyses. The C-3 analysis is based on total C-3 employment forecasts, not just the increment of employment growth in the C-3 District. At screenlines where it was possible to identify a non-C-3 travel component, the method of analysis used to make the non-C-3 travel forecasts involved developing growth rates for total travel at the screenlines based on historic measurements. These growth rates in total travel were applied to the non-C-3 component of all travel at the screenlines to project growth in non-C-3 travel. This non-C-3 growth was added to the C-3 District growth to provide estimates of total future travel.

Description of how future non-C-3 traffic growth at the U.S. 101 screenline was calculated provides an example of this procedure. In general, for each of the analysis time periods (1981-1984, 1984-1990, 1990-2000), the appropriate overall percentage increase (based on the compounding of the average growth rate for total travel for the specified number of years) was multiplied by the non-C-3 component of travel at the screenline for the base year. Sample calculations for the 1981-1984 period are shown below:

- The plot of historic (1977-1982) data showed an annual average increase in southbound traffic volumes of approximately 1% per year [J. 22].
- For the interval 1981 to 1984, the compounded growth at 1% per year would be a total increase of 3% over 1981 volumes.
- The non-C-3 component of southbound peak-period travel on U.S. 101 at the screenline in 1981 was identified as 10,020 vehicles [October 17, 1984 Supplemental Materials, spreadsheet ASSIGN 2HR].
- The 1984 non-C-3 travel was calculated by multiplying the 1981 volume by the total growth rate for 1981 to 1984, e.g. $10,020 \times 1.03 = 10,320$ peak-period vehicles.

The above process was used in an equivalent manner for I-280, Bay Bridge and Golden Gate Bridge traffic. The growth rates used in the traffic analysis are shown in the third (last) paragraph on p. J.22.

Because of the inherent complexity of the transportation modelling process, it was not possible to separately identify the non-C-3 travel component for several of the transit carriers. Therefore, the portion of travel labeled "C-3 travel" in many cases also includes some non-C-3 travellers. As explained in Appendix J to the Downtown Plan EIR, in some cases it was not possible to separate C-3 and non-C-3 travellers reflected in the totals. (see pp. J.20-25.) When this was the case, since the focus of the Downtown Plan EIR was to evaluate various alternative growth controls for the C-3 District, C-3 travel was emphasized in order to show C-3 District impacts in the most conservative light. For example, although BART ridership includes a non-C-3 component, the C-3 component includes all riders who enter the system at the Market Street stations. Obviously, some travellers using one of the four Market Street stations actually work south of Folsom or in Chinatown or on Van Ness Avenue. Because these travellers are included in the C-3 numbers, the non-C-3 component is under-reported but the total travel at these stations (including C-3 and non-C-3 travel) remains accurate (see Appendix J, p. J.23). Golden Gate Transit and SamTrans illustrate this point even more strongly: survey data showed that C-3 use of these systems (as estimated in the analysis) essentially equals total ridership (as measured at the screenline), leaving no non-C-3 component. Although in reality there clearly are workers from outside C-3 who commute on these transit systems, the Downtown Plan EIR analyses called everyone C-3 (thereby overestimating the C-3 component) because there was no statistical basis on which to separate the totals into two components and because the focus on the EIR was C-3 District impacts.

Travel by automobile is measured as numbers of vehicles without regard to the numbers of passengers, since vehicles cause the traffic impacts on streets and freeways. Therefore, while a non-C-3 component is clearly identifiable in the freeway analyses in the EIR, a precise number of non-C-3 travellers is not identifiable.

The transportation impact analysis measures the impacts of growth in total travel, incorporating both C-3 District and non-C-3 District growth parameters as appropriate. Although in some cases, the non-C-3 component cannot be separately identified, it is included in the estimates of total travel and is thus accounted for in the impact analysis. This total future travel scenario presented in the Downtown Plan EIR is also a reasonable and appropriate future scenario for the cumulative impact analysis in this EIR.

With these facts in mind, it becomes clear that while total travel on the various transportation systems is accurately projected by the computer model, the portion of the total that represents non-C-3 travellers can not be identified in such a way as to permit comparison with any estimates of numbers of workers expected to have jobs in the non-C-3 portions of the greater downtown, as SFRG has attempted to do.

SFRG attempts to show that the Downtown Plan EIR to provide an adequate analysis of cumulative impacts by calculation which purports to show that the non-C-3 portion of the transportation results is too small to reflect a reasonable amount of employment in downtown areas outside the C-3 District in the future. With the basic points explained above, it can be seen that such an attempt must fail because there is no claim in the EIR that a non-C-3 component can always be separately identified in the analysis. This does not make the EIR analysis inaccurate; the EIR analysis merely uses different methodology from that which appears to have been assumed by SFRG.

There are major flaws in SFRG's comment. SFRG manipulates numbers from several EIR tables to arrive at a result they allege is a portion of the non-C-3 travel. They then explain that because the result is nearly zero, the EIR must have ignored non-C-3 travel. Because the information in the EIR tables was misused by SFRG, their statements are, in fact, meaningless.

The basic problem with SFRG's approach is that they have attempted to compare figures which simply are not comparable. SFRG has subtracted in and outbound travel estimated at the C-3 District boundary (from Table IV.E.1) from a number which represents only outbound total travel measured at the screenlines (from Table IV.E.2). The C-3 numbers from Table IV.E.1 are comprised of two travel directions, only one of which is relevant to the outbound total from which "C-3 travel" is being subtracted. The result of this calculation is meaningless.

Furthermore, the transit systems which SFRG chose to illustrate their point are among those for which some non-C-3 travellers were included in the C-3 portion, as described above. Therefore, even if the arithmetic comparison of the two tables could be accurately adjusted, the result would not reflect the entire non-C-3 component that is accounted for in the travel projection totals.

Summary Comment. The economic model of the Downtown Plan EIR assumed that development would be curtailed if office rents fell below 1980 levels (in constant dollars). Contrary to this assumption, the office market of the past several years has demonstrated that office projects will continue to be built despite lower rents. The Downtown Plan EIR therefore underestimates the amount of C-3 office development that will occur. In fact, the Downtown Plan EIR predicts that 2.3 million square feet of additional office space in the C-3 District will be approved by the end of 1987. Since the City will have already approved 3.1 million square feet of office space in the C-3 District by June of 1985, it is clear that the C-3 area rate of development may be 50% higher than predicted in the Downtown Plan EIR. (Exhibit SFRG-28, pp. 14-16.)

Summary Response. As noted at page 10 of part 1 of the March 19 Report, recent rates of approval are not typical of a long-term pattern, as evidenced by higher vacancy rates and smaller rent increases than have been seen in the past. Furthermore, the Downtown Plan impacts analyses are based on employment, not merely on empty space, so space built and occupied is the critical parameter rather than recent completion rates. The Downtown Plan EIR analyzes impacts over a long-term and thus should not and does not simply project a short-term rate into the long-term future as is requested. This point is reinforced by the observation that the Downtown Plan proposed policy changes that could not be reflected in a simple projection of recent building rates. Finally, the employment forecasts for the Downtown Plan are higher than those of the Association of Bay Area Government's for the same time frame. (See also Responses, Downtown Plan FEIR Vol. 3, part 1, Section B.1.1, B.1.2.)

SFRG's calculations contain fundamental errors which were pointed out in the March 19 Report (see especially pages 11-13 of Part 1 and pp. 4-5 of Part 2). The errors resulted from SFRG's misreading or misquoting statements from the EIR in an attempt to compare C-3 district office space forecasts with lists of proposed and recently approved projects from the entire greater downtown area. Contrary to SFRG's Comment, the EIR does not state that 2.3 million square feet of office space will be approved between 1983 and 1987. Rather, it says: "The employment forecasts indicate that an additional 2.3 million square feet of space in office buildings could be absorbed if it were built by 1990 This additional space would be in projects approved after August 23, 1983." (p. IV.B.25) (As an aside it is important to note that the EIR forecasts assumed that space in Yerba Buena

Center would be approved, and would be largely built and occupied by 1990. This space was not part of the 2.3 million square feet of additional space cited above.) There will probably be more than 2.3 million square feet approved before 1990, but the figures used in the EIR relate to space built and occupied, which is necessarily smaller than the amount of space approved over the same time frame.

Summary Comment. the Downtown Plan EIR analyzes the environmental impacts of 18.3 million square feet of new office space forecast to be constructed by the year 2000. As there is currently 14.4 million square feet of office space under construction or approved, the City may only approve 3.9 million square feet, or approximately 300,000 square feet per year or else the amount of development analyzed in the Downtown Plan EIR will be exceeded. A citywide annual limit on office space construction is necessary to insure that San Francisco does not suffer from adverse impacts which exceed those analyzed in the Downtown Plan EIR. (Exhibit SFRG-28, pp. 16-24.)

Summary Response. As explained in the March 19 Report (particularly Part 1, pp. 12-15), it is not appropriate or logical to subtract from the C-3 District forecasts all projects that have been approved or under construction in the greater downtown area. The result has no meaning and certainly cannot be labeled as the amount of C-3 development remaining to fulfill the EIR forecasts. Yet, that is how SFRG arrived at its conclusion that only 300,000 square feet per year could be approved if the Downtown Plan EIR forecasts were correct. The forecasts are far more rational than this and would not arrive at such a small annual average absent some form of additional limit on annual building permit approvals. (See also the Downtown Plan EIR pp. IV.B.35 and VII.B.2.)

b. Discussion of Exhibits SFRG 33 through 36

SFRG Exhibits 33 through 36 are comprised of lists of approved projects, compiled in some cases by the Department of City Planning for other purposes, and in some case by SFRG. The purpose these exhibits are intended to serve in the context of materials incorporated by reference as comments on the 299 Second Street DEIR is not particularly clear.

There are some errors in the lists SFRG has compiled. For example, the indication in SFRG-33 that the Federal Reserve Bank application was initially received by the

Department in 1979 is inaccurate -- environmental review of that project began in 1978. The same error is repeated many times in this table; other examples include Crocker Plaza, which began review in 1978, not 1979, and 353 Sacramento which began review in 1979, not 1980. similar errors are found in SFRG-35, such as the item which indicates that the 135 Main street project was complete in 1984, when in fact construction is still in early foundation stages in 1985. However, correction of these errors would not serve to make the materials any more clearly relevant to the 299 Second Street DEIR or the other materials incorporated by reference. As these exhibits were all submitted to the Board of Permit Appeals on the day of that body's hearing, March 6, 1985, they could not be referenced in any way in the SFRG Brief in that case since it was submitted several weeks earlier. Thus the brief provided no explanation as to the purpose of these exhibits or their relevance to the 299 Second Street EIR.

Exhibit SFRG-33 does indicate that it is presented as support for the fact that recent application-to-occupancy times average 2.9 years. However, the errors in the SFRG-produced table indicate that their average is underestimated. In addition, the recent, short-term time frame provides no useful indication of future, long-term construction and occupancy rates.

If this group of exhibits is intended to provide background information for the argument that all projects on the list used for the list-based cumulative analysis would be completed by 1990, that point was discussed above in these responses to incorporated materials, on page 188 of this document.

SFRG-36 appears to be an attempt to show that future non-C-3 transit ridership coverage in the Downtown Plan EIR is inadequate. That point, too, has been raised and discussed above (see page 206 of this document). As noted there, SFRG continues to assume that non-C-3 employment can be "found" in the transportation analysis. However, the calculations cannot be run "backwards" to derive employment from non-C-3 ridership. This is due in part to locations of screenline measuring points and the fact that some non-C-3 transit riders cannot be separated from the C-3 component. These points are explained in detail in the May 7, 1985 report to the Board of Supervisors, incorporated by reference above.

D. SFRG COMMENTS DATED DECEMBER 6, 1984 AND RESPONSES SUBMITTED BY THE DEPARTMENT OF CITY PLANNING FOR THE ONE SANSOME STREET EIR

This material was submitted by SFRG as comments on the One Sansome Street EIR Responses to Comments. This material is entirely duplicative of other materials which SFRG incorporated as comments. The comments in the December 6, 1984 material relate primarily to the Downtown Plan EIR cumulative impact analysis, including its relationship to the list-based method and its analysis of non-C-3 development. All substantive points raised in the December 6, 1984 material have already been summarized and responded to in the above Summary Comments and Responses.

SFRG's December 6, 1984 comments on the One Sansome Street EIR Responses to Comments and the One Sansome Street EIR are available for inspection at the Department of City Planning, 450 McAllister Street, Sixth Floor, San Francisco. The comments in those materials and responses to those comments are summarized above and incorporated by reference herein.

RESPONSE

The "Mission Bay Project" as such has not been precisely formulated. An extensive planning process is underway for the Central Waterfront Area, including Mission Bay. This planning process is expected to be completed sometime in late 1986 or early 1987, at which time amendments to the City's Master Plan can be considered by the City Planning Commission, followed by proposed amendments to the City Planning Code and Zoning Maps, both of which must also be acted upon by the Board of Supervisors. The present work effort also includes preparation of a development agreement enabling ordinance and a development agreement between the City and Santa Fe Pacific for the specific area within the Central Waterfront Area known as Mission Bay. These latter two pieces of legislation would also require action by the Board of Supervisors. If all of these actions were to result in approvals, a general framework of development in the area would be established. Precise development permits would still be required in order to permit actual construction and later occupancy of the first buildings in the Mission Bay project area. It is not expected that the area would be fully developed by the year 2000; no forecasts are yet available to predict how much might be developed by that year.

Background studies for the major area-wide environmental assessment have been started to accompany the planning effort. This environmental analysis will cover a variety of alternative possible development programs for the Mission Bay Area. It cannot be determined this early in the planning process whether or not separate environmental review will be necessary for various building phases in the Central Waterfront area.

No formal application or request for environmental evaluation has been filed with the Department as of the date of these Responses. Because the Mission Bay development planning activities are not like a typical development proposal for a single building, it is not anticipated that the initial request for environmental review, when filed, will provide the same level of detail about building size, uses, design and amenities that are normal for the application. Thus filing a request for review will probably not initially define the project in such a way as to permit much more detailed analyses than is presently possible.

From the above scenario it can be seen that while there has been activity in the Department of City Planning regarding Mission Bay, development in the area has not yet been defined. The level of development described in the letter from Mayor Feinstein to Santa Fe Pacific Land Co. in 1984 is only one possible scenario. (The Mayor does not have sole authority over development proposals in San Francisco.) The acceptance by the Board of Supervisors of funds for planning studies was accompanied by a clear statement that the Board was in no way indicated any sentiment to approve any development in the Mission Bay (see Board Resolution No. 345-85 included in the comment).

The Mission Bay project is not properly included on any list of individual projects for cumulative analysis. There are a number of reasons for this which are discussed below. It is important to note, however, that while technicalities of a list methodology do not permit simple addition of development of Mission Bay to a list, forecast methods, such as that used in the Downtown Plan EIR, can account for this kind of potential but somewhat speculative development. No precise forecast or estimate of amounts and types of uses or transportation facilities and patterns is available for Mission Bay, but the Downtown Plan EIR does account for development in Mission Bay area that might occur by the year 2000. As noted on page C&R-B.38: "The EIR analysis does not ignore 'half the downtown growth,' the growth in 'functionally -- connected areas,' the cumulative list of major projects, or Mission Bay...The effects of all of these plans and projects on the 'economic

dynamics of downtown development,' are incorporated in the EIR analyses and C-3 District forecasts." (See e.g. pp. IV.C.35-36, IV.C.50, IV.D.60, C&R-B.37-43, C&R-B.56-59, C&R-B.75-76, and C&R-B.77-78, and Note 42, IV.D81d).)

The transportation analysis in the Downtown Plan EIR clearly accounts for development outside the C-3 District, including development in the Mission Bay area. This is explained in detail in the Responses to Comments in the Downtown Plan EIR, Section E.1.9 (pp.C&R-E 25-29). In that Response it is pointed out that assuming full development of all office-type uses included in the Mayor's 1984 letter to Southern Pacific, without accounting for any housing or any additional transit facilities added in the area, and assuming travel patterns similar to those of the C-3 District, the travel impacts of the commercial portions of the Mission Bay development were shown to be included in the non-C-3 portion of the transportation analysis in the Downtown Plan EIR.

It would not be appropriate to speculate as to the total amount of office space that might be developed in Mission Bay and add that to the list of proposed and approved projects. To do so would ignore the fact that several thousand units of housing built in Mission Bay on the edge of the greater downtown could reduce transportation and air quality impacts. Such an approach would ignore any changes in the transportation system that might accompany Mission Bay development and would magnify the problems inherent in a list-based analysis of cumulative effects. As explained in the SEIR (Page 50), transportation analysis using a list of projects overestimates the number of trips generated by the total square footage because those trips that move from one building to another within the study area are counted twice, as coming from both buildings. That is, because of the limited ability to adjust the standard trip generation factor of a building, all trips out of one building, some of which go to retail or restaurant use in another office building and all trips out of that second office building to the traveler's destinations, all made during the peak period are all counted in the analysis. (These are called "linked trips.") Some of these trips are only from office space to ultimate destinations but may be counted as two or more. Simply adding several million square feet attributed to Mission Bay to the present list would further compound the exaggeration inherent in the list-based methodology, at a point when the proposed amount of office space in Mission Bay is not known.

There are other similar problems with a list-based analysis that again would result in misleading over- or underestimated impacts by the addition of Mission Bay. The list-based analysis methodology fails to account for shifts in commute patterns from drive alone to carpool, vanpool and transit use. These mode shifts have been documented over the past 5 to 10 years and are accounted for in the methodology used in the Downtown Plan EIR. Without the adjustments, auto use is overestimated and transit use is underestimated.

A list-based method is one way to provide an indication of impacts of future development, but when another method is available, as here, which accounts in the appropriately general way for possible development in the Mission Bay area, it seems particularly unreasonable to simply add some maximum estimate to a list that already overestimates impacts. To "adjust" the list-based methodology for the noted problems approaches the employment forecast estimate used in the Downtown Plan EIR. This approach is presented in its analysis insofar as is practical and reasonable at this time.

To require that alternative development scenarios be fully analyzed for the Central Waterfront and Mission Bay planning areas as part of EIRs on individual building proposals would be a de facto moratorium on building approvals until the EIR covering the planning effort for Mission Bay was completed. This would be similar to the moratorium that would have ensued had SFRG been successful in its challenge to earlier project EIRs based on the fact that an EIR on the Plan for the C-3 District was underway.

A more reasonable approach is to use the analysis available in the Downtown Plan EIR until a more detailed analysis of the Mission Bay project can be prepared, circulated and reviewed in the Mission Bay EIR. This is not expected to be complete until the late 1986 or early 1987, notwithstanding the inaccurate reports in newspaper articles such as the September 11, 1985 article cited in the comment. Preparation of the Downtown Plan, its EIR and the various approval actions took four years. It is not unreasonable to expect the Mission Bay planning and decision making to take a somewhat shorter time, but no decisions are expected prior to 1987 and those decisions may not provide for any specific building permits. Actual construction and later building occupancy, when impacts might begin to be felt, is more likely to be several years away, with full buildout and absorption, likely anywhere from 2005 to 2020.

The point that Santa Fe Pacific is listed as the funding source for a portion of the I-280 Transfer Concept Program does not make the Mission Bay project any more imminent. The portion of the I-280 project attributed to Santa Fe Pacific is the removal of the stub-end of I-280 at Fourth Street in the South of Market Area. This piece of unused freeway is within the Santa Fe Pacific Mission Bay boundaries. It is logical to assume that if Southern Pacific wishes to develop this area, it would prefer that the stub-end of I-280 be removed and would expect to finance the project. If this developer has no interest in removal of this part of the freeway, the stub end could remain in place without affecting the remainder of the I-280 program. The City does not plan to fund this portion of the I-280 Program.

The following is the letter requested by the Commentor:



October 16, 1984

Mr. James O'Gara
Vice President
Southern Pacific Land Co.
201 Mission Street, 30th Floor
San Francisco, CA 94105

Dear Mr. O'Gara

The following summarizes my position on the scope of the proposed Mission Bay project. Should you propose a development which complies with these general guidelines, I am prepared to support it before various governmental bodies:

Building Heights: No building will exceed 8 stories in height.

Residential Units: At least 7,577 residential units will be constructed on the sites indicated on the attached map. Units will contain between 750 to 1,200 gross square feet (average size 850 gross square feet) with a price range of \$105,000 to \$288,00 (average price \$182,000) in 1984 dollars. Costs will be indexed for any increase in the Consumer Price Index, San Francisco Bay Area, during build-out period.

Affordability: At least 30% of the residential units will be "affordable" units. As used here "affordable" means a sales price between \$105,000 and \$150,000 (average price \$125,000) in 1984 dollars. SF/SP will price 15% of the units (1,137) at "affordable" prices. The Mayor will propose legislation to the Board of Supervisors creating an Affordable Housing Fund for Mission Bay which will provide financial assistance so that at least an additional 15% of the units (1,137) can be marketed at affordable prices. Monies for this program will come from increased property tax revenues resulting from reassessments as parcels are improved in the project area.

Research & Development (R&D): Up to 2,600,955 square feet of space suitable for research & development uses will be constructed on the sites indicated on the attached map.

Office: Up to 4,124,800 square feet of primarily large floor area office space suitable for "back office" uses will be constructed on the sites indicated on the attached map.

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Retail: Up to 201,000 square feet of retail space will be constructed in the area, with a major center in the westerly portion of the area as shown on the attached map. Lesser retail concentrations may occur in other portions of the project not necessarily on the sites shown on the map.

Rate of Construction: Construction of office and R&D space and of housing will proceed at the same pace. This means that for every 914 square feet of office and R&D space constructed, at least one residential unit will be constructed.

Rail Access: Development of Mission Bay will not cause the cessation or in any way impair rail access to businesses and Port facilities located in San Francisco.

Various capital improvements are to be made, as follows:

Site Improvements: The parks, lagoons, canals, waterways and public open space are to be constructed as identified in plans previously submitted by Southern Pacific.

Freeway: The I-280 ramp east of 6th Street should be demolished, with the cost to be borne by SF/SP. The Mayor will propose that new on and off-ramps be constructed by the State Department of Transportation with I-280 transfer funds.

Caltrain: The current commute train station should be relocated by SF/SP to the area of 7th and Channel Streets, subject to the retention of a right-of-way for tracks to the downtown area should the State Department of Transportation desire to proceed with construction of a downtown terminus. The Mayor will use her good offices to seek the necessary state approvals and funding for station relocation.

Muni-Metro Extension: The Mayor will use her best efforts to get the Muni-Metro light rail system extended to the relocated Caltrains station to 7th and Channel Streets, and will encourage its eventual extension south and east through the project to 16th Street. SF/SP will donate to the City rights-of-way within the area for these extensions.

Street Vacations: Currently improved and unimproved public streets and sidewalks within the project area and proposed for removal by SF/SP will be transferred to SF/SP and in exchange all new streets and sidewalks will be deeded to the City by SF/SP. If the fair market value of streets deeded to the SF/SP exceeds the fair market value of streets accepted by the City, SF/SP will pay the difference to the City.

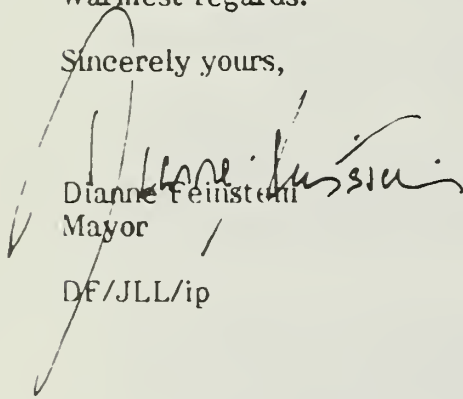
Mr. James O'Gara
Southern Pacific Land Co.
October 16, 1984
Page 3

Public Park: A landscaped park of approximately 19 acres for active recreational use should be developed on the property of the Port of San Francisco east of Third Street and north of Mission Rock Street at China Basin as shown on the attached map. The Mayor will request the Port Commission to lease the property to SF/SP for 66 years without charge. The park will be open to the general public at no cost. Cost of development and maintenance of the park will be borne by SF/SP. However, if the City receives monies for the street vacations those monies will be applied towards the development costs. SF/SP will not be responsible for repair or improvement of any sea wall.

If the Santa Fe-Southern Pacific Land Company is in agreement with these guidelines, please execute an enclosed copy and return it to my office. I look forward to seeing a detailed development proposal brought to the Planning Commission as quickly as possible so that ground can be broken for this important project.

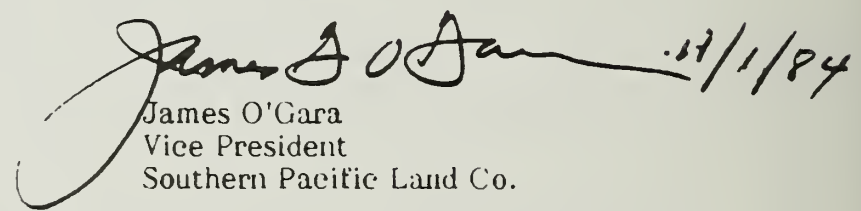
Warmest regards.

Sincerely yours,

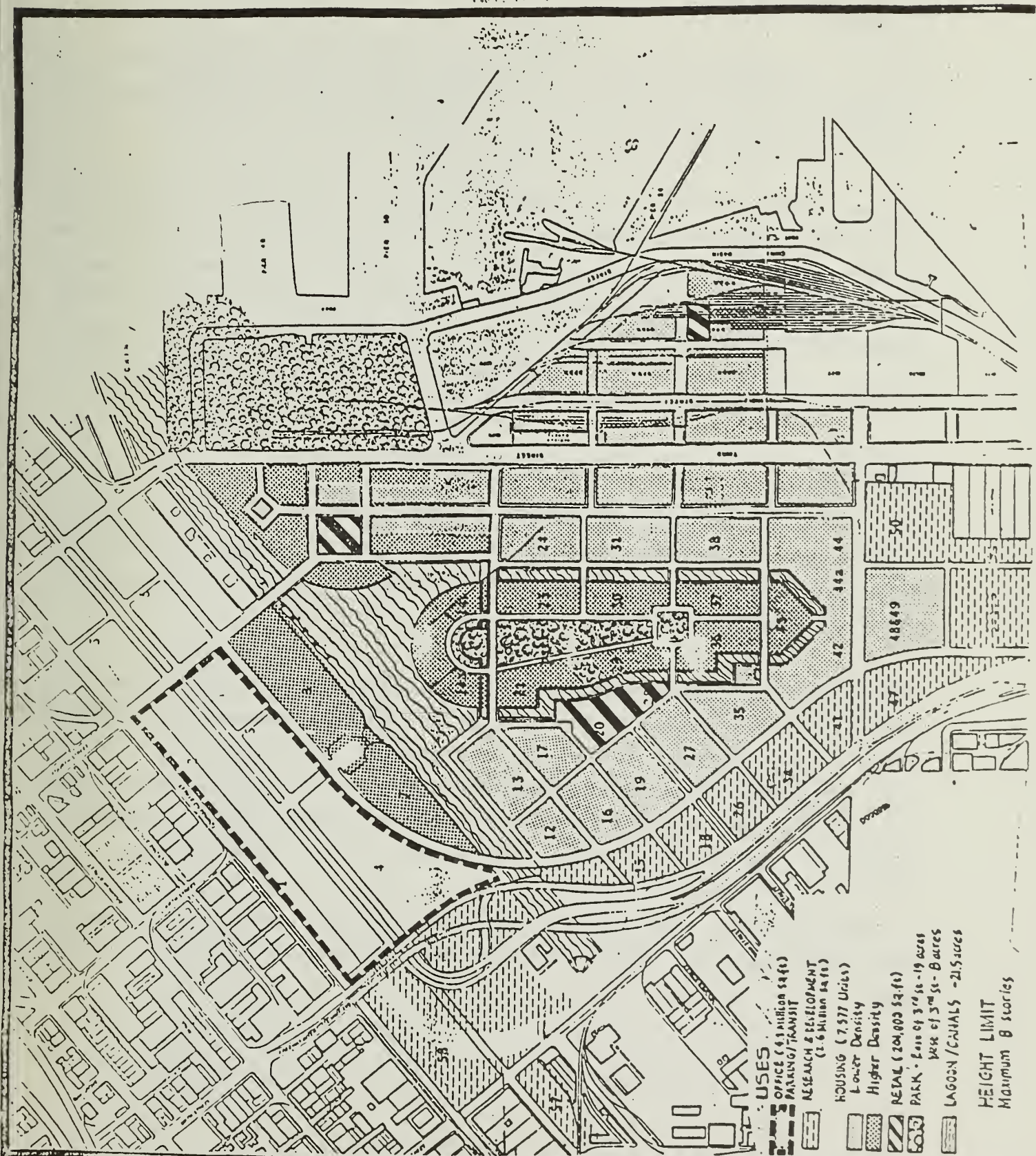

Dianne Feinstein
Mayor

DF/JLL/ip

Acknowledged


James O'Gara
Vice President
Southern Pacific Land Co.

10/11/84



- USES**
- OFFICE (4.1 million sq ft)
 - PARKING/TRANSIT
 - RESEARCH & DEVELOPMENT (2.6 million sq ft)
 - HOUSING (7,377 units)
 - Lower Density
 - Higher Density
 - RETAIL (204,000 sq ft)
 - PARK - Lots of 3rd to 19 acres
 - WATER OF 3rd to 19 acres
 - LAGOON/CANALS - 215 acres
- HEIGHT LIMIT**
Maximum 8 stories

D. HISTORIC, ARCHITECTURAL AND CULTURAL RESOURCES

COMMENT

"Page 12. It states that there are no Department of City Planning ratings for the two buildings that are to be torn down on Folsom Street, the one that Mr. Patri has his office in and the corner, where there is the cafe, the existing buildings.

"Did our Department do a thorough rating of buildings this far south? This project and 100 First Street both use that language. It's used to strengthen the case, probably, that the buildings aren't important enough to worry about saving. If the Department has not done a pretty thorough study of this area, I think that the language should just be struck, or clarifying language put in that the Department has not made a real careful survey of the area. I don't know how much surveying has been done as to classification of the buildings." (Susan Bierman, CPC)

RESPONSE

The Department of City Planning ratings for buildings in the project vicinity appear on page 41 (Figure 15) of the EIR. Also, the revised Figure 15 at page 253 of this document shows project vicinity buildings designated by the Department of City Planning as either Significant or Contributory.

The Department of City Planning surveyed buildings in the South of Market Street area included in the Downtown Plan boundaries as part of the Downtown Plan preparation process. The two buildings specifically cited by the Commentor are situated within this area. The permanent controls to implement the Downtown Plan contain, at Appendices A-D, a listing of all Department of City Planning designated buildings. Standards for designations of these buildings appear at Section 1102 of the Permanent Controls.

A listing of buildings in the project vicinity which are designated by the Department of City Planning under the Downtown Plan as either Significant or Contributory appear below.

<u>Building</u>	<u>Category</u>
CARROL & TILTON BLDG. 735 MARKET	II
BANCROFT BLDG. 725 MARKET	II
CENTRAL TOWER 703 MARKET	III
EXAMINER BLDG. 691 MARKET	I
SANTA FE BLDG. 601 MARKET	IV
SCHUMACHER BLDG. 20 SECOND ST.	IV
CALL BLDG. 74 NEW MONTGOMERY	I
PALACE GARAGE 111 STEVENSON	I
WELLS FARGO 71 SECOND ST.	I
CALIFORNIA FARMER 83 STEVENSON	III
ONE ECKER 16 JESSIE	I
RIALTO BLDG. 116 NEW MONTGOMERY	I
PACIFIC TELEPHONE BLDG. 134 NEW MONTGOMERY	I
RAPP BLDG. 121 SECOND	I
N. CLARK & SONS (PKG) 116 NATOMA	I
MORTON L. COOK BLDG. 132 SECOND	I
BARKER KNICKERBOCKER 141 SECOND	I
UNDERWRITER'S 147 NATOMA	I
ELECTRICAL BLDG. 165 SECOND	IV
SHARON ESTATE CO. 667 HOWARD	III
S.F. NEWS CO. 657 HOWARD	I
BRIZARD & YOUNG 72 TEHAMA	III
PHILLIPS BLDG. 234 FIRST	I
658 MISSION	I
39 NEW MONTGOMERY	I
79 NEW MONTGOMERY	I
631 HOWARD	II
609 MISSION	IV
617 MISSION	IV
111 NEW MONTGOMERY	IV
137 NEW MONTGOMERY	IV
170 NEW MONTGOMERY	IV
36 SECOND	IV
42 SECOND	IV
48 SECOND	IV
52 SECOND	IV
60 SECOND	IV
70 SECOND	IV
76 SECOND	IV
90 SECOND	IV
120 SECOND	IV
133 SECOND	IV
144 SECOND	IV
149 SECOND	IV
156 SECOND	IV
163 SECOND	IV
168 SECOND	IV
182 SECOND	IV

COMMENT

"Page 57, and you'll be happy to note that that's almost as far as I've gotten, under 'Planning Code' it says, 'In order to provide for an orderly expansion of the financial district in a way that will maintain a compact downtown core, and to create an area in which to direct unused development potential of lots containing Significant or certain Contributory Buildings, a special use district known as the Downtown Office Special Development District has been created through the Interim Controls to implement the Downtown Plan.'

"Well, reading this and last week's EIR, we're going to save North of Market contributory buildings and lose the whole flavor South of Market. It has troubled me ever since this special district was designated. But now that we are getting the EIRs about it, I think really the Department should take serious look at what it really means. I think these two EIRs show that we are undoing a semi-historic district. Granted, it has had a lot of things done there that maybe make it what you would call new rather than old. But I really don't know whether the philosophy is going to work or is going to be what we really want to happen. Do we really want to give this part of the city up? That is just one of my major concerns.

"On Page 40 again it talks about the rating of these buildings. It quotes Planning Commission Resolution 8600, which doesn't include these buildings. When I looked carefully at the map on the next page, it seems to indicate that the last number, the last building of any Department rating is on Natoma Street. I don't know whether the Department has put much effort into looking further south. Heritage's rating on these is C. But I don't think the Department has looked at them. I would like you to look at Resolution 8600 and then see how much effort went into rating these buildings at the time we did 8600, because I don't think it will be included. But the negative use of a Planning Commission resolution and the negative use of lack of department designation can't go on in this area. The last two EIR's have done it, and we've got to be more careful about what we are doing.

"This is not just about this building, but about the Downtown Plan. Our dropping, or at least I think we have dropped our emphasis or even giving lip service to C-rated buildings. I think that it's not doing service to some of the valuable C-rated buildings and the feeling

that they create by their being there of what the city was and what the city is and will be." (Susan Bierman, CPC)

"p. 40. Architectural and Historic Resources: This section should be updated with the Downtown Plan lists of Significant Buildings. The 1980 list is obsolete at this point.

"This section should also discuss the importance of C rated buildings in terms of setting the historic context of an area." (Jonathan Malone, LPAB)

RESPONSE

The C-3-0(SD) zoning district is an area adjacent to the C-3-0 District, wherein transferable development rights can be located. Relatively few Significant and Contributory buildings are actually located in C-3-0(SD) District.

The City Planning Code, at Article 11, provides guidelines for development in the New Montgomery-Second Street Conservation District. The district is bounded roughly by Market, Second, Howard, and New Montgomery Streets. This district is the only such district in the South of Market Area. Included in this district are approximately 36 of the roughly 67 Significant and Contributory buildings in the South of Market Area. Thus, 67, or 16% of the approximately 419 Significant and Contributory buildings listed in Article 11 of the City Planning Code are located in the South of Market Area. Downtown Plan policy encourages, but does not require, retention of contributory buildings. In Conservation Districts, special requirements encourage retention of these buildings.

The City has recently published the proposed South of Market Plan (June 1985). Pages 41 and 74 of the Plan show that an office corridor district is envisioned along Second Street south of Folsom Street. A larger area encompasses the proposed Second/Townsend Historic District, wherein several historically or contextually important buildings are located.

At the time of publication of the proposed South of Market Plan, a map of buildings of architectural and/or historical merit was presented (Figure 17, page 71 of South of Market proposal). Subsequent to the publication of the South of Market proposal, the Department of City Planning conducted a more comprehensive study of buildings in the South of

Market area. Preliminary ratings of buildings in the South of Market area are being prepared and will become available to the public as part of the South of Market Plan. If implemented, the Plan would require all buildings of merit to be considered for designation as landmarks pursuant to Article 10, Section 1004 of the City Planning Code.

The Rincon Hill Plan Final EIR (82.39E, certified June 27, 1985) contains a discussion of significant buildings and preservation policies in that plan area at pages 45-46a and 90-94 of the Final EIR and pages 10-19 of the Comments and Responses. These pages are incorporated herein by reference.

Resolutions 8275 and 8600 were specifically limited to the C-3 Districts, and therefore did not cover the South of Market Plan area or the Rincon Hill Plan area.

Figure 15, on page 41 of the EIR, shows the S.F. News Company Building, at 657 Howard Street, as a DCP-3 rated building. This building is located south of Natoma Street.

The DCP building survey area prepared as part of the South of Market Plan covers the entire South of Market area, extending from the downtown to China Basin and the Central Skyway.

As noted in the footnote on page 40 of the EIR, Heritage's "C" rating indicates buildings of contextual importance to the overall architectural character of the area. Demolition of these buildings would affect this context and interrupt the continuity of one- to five-story buildings typical of the South of Market area in the project vicinity.

Discussion of C-rated buildings appear on pages 12, 40-41, 85, and A-63 to A-65 of the EIR. Further, these buildings are buildings that themselves are not highly rated in architectural quality and relationship to the environment, but do make a substantial contribution to the quality of an area that contains a number of highly-rated buildings and that is proposed to be given special protection as a conservation district.

COMMENT

"In light of these exemptions, how can the Department justify the demolition of two "C" rated buildings by Heritage? How many "C" rated or non-department rated buildings will

be demolished? Please provide the public with a map of future projects and the current buildings. (Georgia Brittan, SFRG)

RESPONSE

As stated on page 85 of the EIR, two buildings would be demolished as part of the proposed project. Those buildings are:

- o 590 Folsom Street, rated "C" by the Foundation for San Francisco Architectural Heritage (Heritage).
- o 299 Second Street, Lot 29, rated "C" by Heritage.

The two Heritage-rated buildings on the project site (590 Folsom Street and 299 Second Street) are not rated by the Department of City Planning.

Figure 12, on page 31 of the EIR, has been revised to include all projects in the project vicinity as of April 1, 1985. The figure appears on page 173 of this document. Figure 15, as revised, which appears on page 253 of this document, provides a map and list of rated buildings in the project vicinity.

It should be noted that it is not the function of the EIR to provide conclusions regarding justification for demolition of C-rated buildings. Such conclusions are to be made by decision-makers, based upon information contained in the EIR.

COMMENT

"P. 41. Figure 15: Include Landmark 149, Klockars Blacksmith Shop at 449 Folsom Street." (Jonathan Malone, LPAB)

RESPONSE

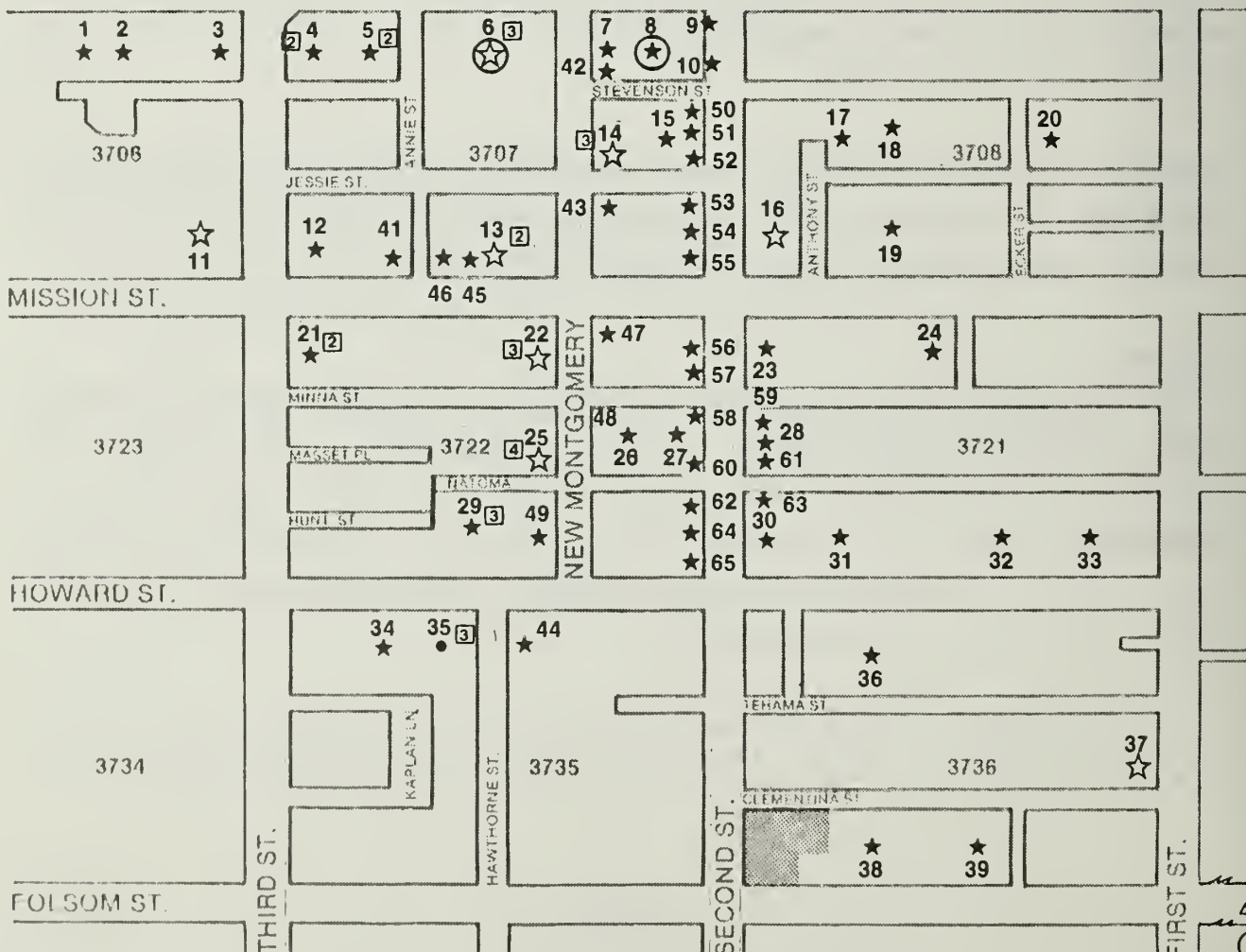
Figure 15, on page 41 of the EIR, has been revised to include landmark 149. The revised map is shown on page 253 of this document.

ARCHITECTURALLY/HISTORICALLY SIGNIFICANT BUILDINGS IN THE PROJECT AREA

FIGURE 15

DOWNTOWN				DOWNTOWN				PROJECT SITE
BLDG. NO	LOT NO	PLAN CATEGORY		BLDG. NO	LOT NO	PLAN CATEGORY		
CARROL & TILTON BLDG 735 MARKET	1	61	II	SHARON ESTATE CO. 667 HOWARD	34	39	III	BLOCK NO. 3706
BANCROFT BLDG 725 MARKET	2	62	II	S.F. NEW CO 657 HOWARD	35	41	I	
CENTRAL TOWER 703 MARKET	3	1	III	BRIZARD & YOUNG 72 TEHAMA	36	91	III	HERITAGE RATING "A" ☆
EXAMINER BLDG 691 MARKET	4	57	I	PHILLIPS BLDG. 243 FIRST ST.	37	6	I	
MONADNOCK BLDG 681 MARKET	5	51	-	J.E. BIER BLDG 572 FOLSOM	38	25	-	HERITAGE RATING "B" ★
PALACE HOTEL 639 MARKET	8	52	-	GEORGE W. CASWELL CO 540 FOLSOM	39	17	-	
METROPOLITAN TRUST 625 MARKET	7	59	-	KLOCKARS BLACKSMITH SHOP 449 FOLSOM	40	28	-	HERITAGE RATING "C" ●
HOFFMAN GRILL 619 MARKET	8	55	-	658 MISSION	41	20	I	
SANTA FE BLDG 601 MARKET	9	1	IV	39 NEW MONTGOMERY	42	35	I	CITY LANDMARK ○
SCHUMACHER BLDG 20 SECOND ST.	10	2	IV	79 NEW MONTGOMERY	43	14	I	
MERCANTILE BLDG 700 MISSION	11	71	-	631 HOWARD	44	5	II	DCP RATING 3
BREEN'S 71-77 THIRD ST.	12	29	-	609 MISSION	45	1	IV	
CALL BLDG 74 NEW MONTGOMERY	13	33	I	617 MISSION	46	73	IV	SOURCES: ROGER OWEN BOYER, EIP ASSOCIATES
SHARON BLDG 55 NEW MONTGOMERY	14	35	-	111 NEW MONTGOMERY	47	72	IV	
PALACE GARAGE 111 STEVENSON	15	44	I	137 NEW MONTGOMERY	48	7	IV	FEET 0 100 200 400
WELLS FARGO 71 SECOND ST	18	19	I	170 NEW MONTGOMERY	49	22	IV	
CALIFORNIA FARMER 83 STEVENSON	17	34	III	35 SECOND	50	4	IV	83086
64 JESSIE	18	29	-	42 SECOND	51	5	IV	
CHANCERY BLDG. 562 MISSION	19	17	-	48 SECOND	52	6	IV	253
ONE ECKER 16 JESSIE	20	22	I	52 SECOND	53	7	IV	
WILLIAMS BLDG 101 THIRD ST.	21	63	I	60 SECOND	54	8	IV	83086
RIALTO BLDG 116 NEW MONTGOMERY	22	71	I	70 SECOND	55	9	IV	
RAPP BLDG 121 SECOND ST	23	71	I	76 SECOND	58	10	IV	83086
549 MISSION	24	81	-	90 SECOND	57	12	IV	
PACIFIC TELEPHONE 134 NEW MONTGOMERY	25	8	I	120 SECOND	58	2	IV	83086
N CLARK & SONS (PKG) 116 NATOMA	28	6	I	133 SECOND	59	51	IV	
MORTON L. COOK BLDG. 132 SECOND ST	27	3	I	144 SECOND	60	4	IV	83086
BARKER KNICKERBOCKER 141 SECOND ST	28	50	I	149 SECOND	61	49	IV	
UNDERWRITER'S 147 NATOMA	29	13	I	156 SECOND	62	5	IV	83086
ELECTRICAL BLDG 165 SECOND ST.	30	25	IV	163 SECOND	63	48	IV	
F.C. JANSSEN BLDG 568 HOWARD	31	20	-	168 SECOND	64	16	IV	83086
CA BOILER WKS./GAR. 522-528 HOWARD	32	13	-	182 SECOND	65	19	IV	
PRINTING ARTS 500 HOWARD	33	11	-					83086

MARKET ST.



The Klockars Blacksmith is recognized in the Rincon Hill Plan (on page 32) as a building which "lacks architectural distinction" but has received landmark designation because it is Figure 15 one of the last of many "smiths" in the South of Market district from the early 20th Century. The Plan calls for its preservation, but not necessarily on its present site. The Plan states the building should be moved elsewhere in the general vicinity if necessary to make appropriate use of the site and adjacent sites for housing. No relocation site or assistance is identified in the Plan to facilitate the move. The Final EIR for the Rincon Hill Plan, on page 90, states that redevelopment of the site would be a likely future scenario.

E. URBAN DESIGN AND VISUAL QUALITY**COMMENT**

"Page 34 through 36. It's describing the corner. I could certainly write a different description of the corner. My description would show how the existing building on the corner and the Patri office building fits with the one across the street to the west that's been beautifully restored. These two buildings are C-rated and fairly cry out for preservation. They're in fine shape. Piero's building inside and out is really quite a distinguished building. The corner cafe building gives real character to what I think is going to become a totally new looking cement jungle. It's not that bad, but it certainly is not going to have any spot that will help people remember what the area was. I think that you can make a case that with a parking lot available to build on, these two buildings that are C-rated are important from a historical context and that the building should be done on the parking lot, not removing these two buildings. The uses along that block are the kind of thing that we need. I think we need those kinds of spaces more than we need another high-rise office building. Because I am afraid that when this goes, then the little buildings to the east will go next. I was down there looking, and the one right next door is a woodworking and refinishing shop of some kind. It just seems to be that those are the kinds of places we need, and we are losing the variety." (Susan Bierman, CPC)

RESPONSE

The EIR (pages 34-36), describes the urban design and visual quality setting in the project vicinity. The EIR discusses on pages 66-74, the relationship of the proposed project to other structures in the area and notes that the proposed project would contrast with smaller-scale buildings on Second Street. At 200 feet, the proposed project would be similar to and compatible with other nearby highrises either under construction or recently completed.

Discussion of the Heritage-rated buildings (the 590 Folsom Building (Lot 27), built in 1921 and the 299 Second Street Building (Lot 29), built around 1906) appears on page 85 of the EIR, as well as in this document, at pages 247 to 254. In Heritage's subsequent survey, dated December 1, 1982, both buildings on-site were rated "C". Neither of these buildings received a rating in the Downtown Plan. The renovated office building on the northwest corner of Folsom and Second Streets has not been rated.

F. SHADOWS AND WIND**COMMENT**

"p. 75 How much of the shadows, either newly cast by the project or those cast in areas that are already shadowed are created by the bulk exemptions? Please discuss both old and new shadows." (Georgia Brittan, SFRG)

RESPONSE

Bulk exceptions for the proposed project consist of the extension of the thirteenth floor of the proposed structure to the external face of the building at a height of 162.5 feet some 2.5 feet above this allowed limit. Provision of a screen wall that extends the facade of the proposed structure from 162.5 feet to about 179 feet on all four sides of the building is intended to enhance the transition from lower to upper tower segments of the building. A review of the shadow diagrams shown on pp. 77-80 of the EIR shows that additional shadows resulting from these proposed bulk exceptions would fall on existing roof surfaces or within existing shadow patterns except in the following instances.

On June 21 new shadows generated by the proposed bulk exception would add about 1,400 square feet of new shadow on 2nd Street at 10:00 a.m. and about 240 square feet of new shadow on Folsom Street at 3:00 p.m. This figure represents about 7% and 4%, respectively, of the net new shadows cast for times indicated. The proposed bulk exceptions would also add about 470 square feet of new shadow on Second Street at 10:00 a.m. on September 21. This figure represents about 2% of the net new shadows cast at this time. On December 21 at 12 noon and at 3:00 p.m. the proposed bulk exceptions would add about 700 square feet and 200 square feet respectively to an area of vacant land northeast of the proposed building. These figures represent about 5% and 6% respectively of the net new shadow indicated.

Throughout the year, new shadow generated by the proposed bulk exception would not vary more than 2% above or below the percentages discussed in the previous paragraph.

G. TRANSPORTATION**COMMENT**

"I would say that glancing through transportation, my single comments would hold true, that I don't think we are giving or getting the true picture of what the transit problem is. . . . we have really not made clear what's going to happen on the bridge, what's going to happen on the freeways. And until that is clear, I don't think we are really doing our job or taking our responsibility. I think it all has something to do with lengthening of the peak hour. That is covered so lightly in these EIRs and in the Downtown Plan. But you can't crowd the bridge. Our Department is saying . . . there won't be any more cars on the Bay Bridge at peak hour than there have been because there isn't any room for them. But I think that there will be more of them, there will be cars earlier and later because they're still going to be coming. I really am questioning the completeness of our analysis of the transportation issue." (Susan Bierman, CPC)

RESPONSE

Regional freeway conditions are discussed on pages 106 and 107 of the EIR. Peak-hour auto traffic in the East Bay and Peninsula corridors is expected to increase about 15% by the year 2000. Peak-hour traffic to the North Bay is expected to increase by the year 2000. The East Bay and Peninsula corridors would have excess peak-hour demand that would not be met, and the North Bay corridor would have unmet excess demand in the peak period. Excess auto demand would result in either a spreading of the increased traffic into the hours adjacent to the peak period, or increased use of ridesharing and transit. See also Responses that appear on pages 207-210 of this document.

COMMENT

"The comments in our 7/13/84 memo (copy attached) have not been incorporated into Figures 4 and 5 of the DEIR.

"The drawings should be changed.

Re: Figure 4, page 13

Figure 5, page 14

"Access to the parking levels and the interior loading dock (Clementina St.) should be via drop curb driveways across the sidewalk.

"They should not be the radius curb returns intersection style shown in Figures 4 and 5."
(Scott Schoaf, DPW)

RESPONSE

Figures 4 and 5 have been revised to show drop curb driveways rather than radius curb returns for the parking level entry and freight loading docks (see next pages). The revised figures appear on pages 259 and 260 of this document, and replace those on pages 15-16 of the EIR.

COMMENT

"After reviewing the Draft Environmental Impact Report for 299 Second Street (83.311E) dated February 8, 1985, we believe that all of the items we mentioned in our August 31, 1984 memorandum have been adequately answered in the report." (K.L. Wong, MUNI)

RESPONSE

The comment is noted.

COMMENT

"It should be noted that transportation service to this area could be impacted by proposed projects in the I-280 Transfer Concept Program. The DEIR/System Planning Level study is in its final stage, and the decision making process to select priority projects for funding and implementation will be undertaken within the next few months." (J.M. Ellis, Caltrans)

RESPONSE

The I-280 Transfer Concept Program Draft EIR was published September 28, 1984. The California Department of Transportation (CalTrans) and the City and County of San Francisco held a joint public hearing on November 15, 1984; the public comment period closed November 30. The City Planning Commission certified the Final EIR on May 23, 1985. Although the Final EIR does not contain a preferred alternative, a package of

PARKING: LEVEL ONE

FIGURE 4

SOURCE: KAPLAN/McLAUGHLIN/DIAZ

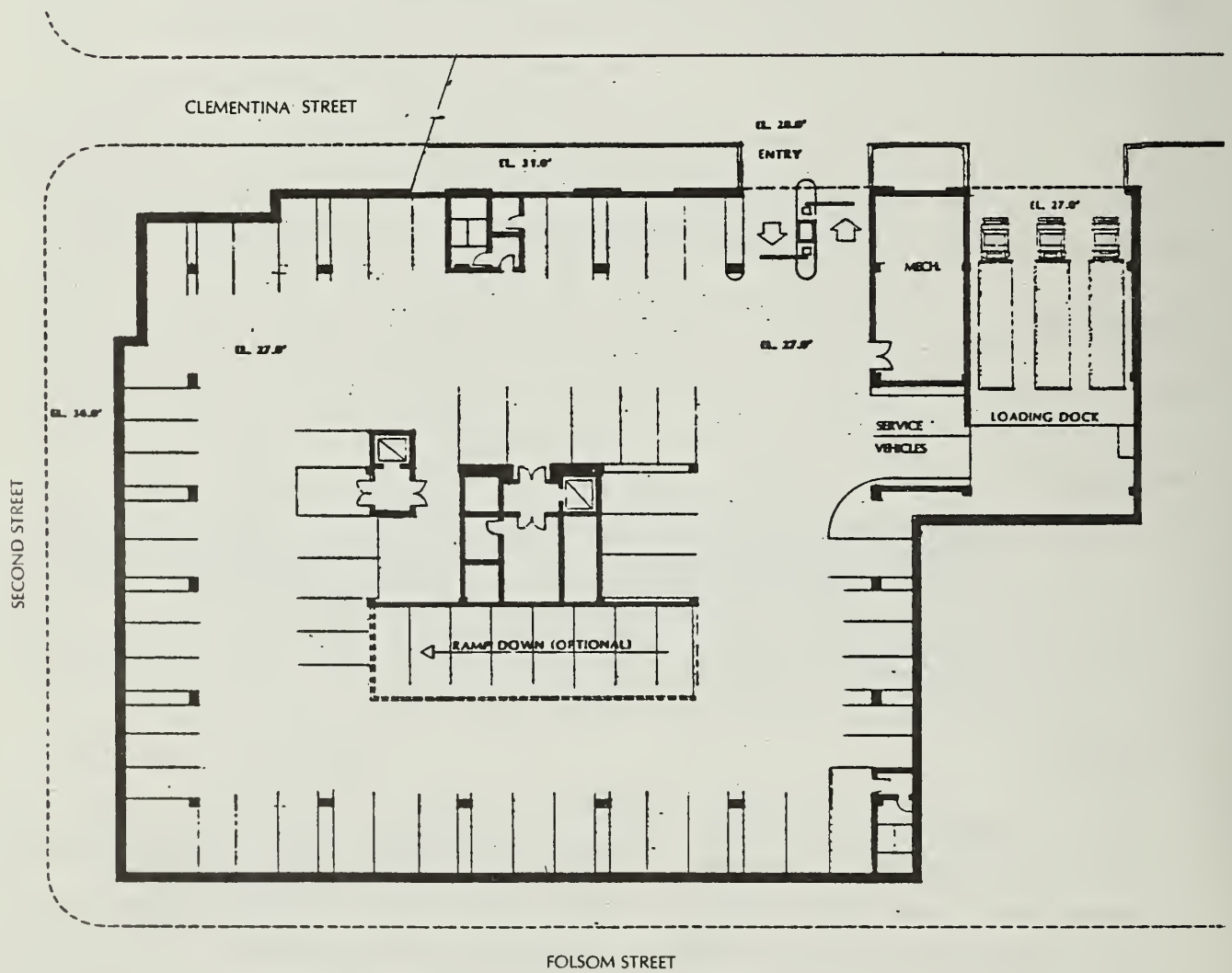
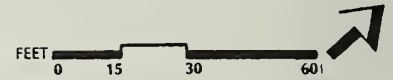


FIGURE 5

FEET 0 15 30 60



transit, highway and traffic improvement projects was identified by the City agencies, and subsequently adopted by the San Francisco Board of Supervisors at its meeting on November 4, 1985 via Board Resolution 965-85. A list of the specific projects comprising the package is found in the Board Resolution. The changes reflected in the package would not substantially alter the transportation network near the project site.

H. EMPLOYMENT, HOUSING AND FISCAL FACTORS

COMMENT

"Page 5 should state what the OHPP requirement would be under the new proposed OHPP guidelines." (Susan Bierman, CPC)

RESPONSE

The last sentence of paragraph two on page 5 of the EIR, is deleted and replaced with the following sentence: "Based on the Office Affordable Housing Production Program (OAHP) formula, the project would generate demand for 90 units (page 134)."

Subsection 2a. of the Employment and Housing Section of the Draft EIR, at pages 134 and 136 of that document, is deleted and replaced with the following:

"2. Housing

"a. Project-Generated Housing Demand and Housing Policy

"To the extent that the project would attract employees from outside the City and contribute to the formation of additional households by existing City residents, it would also contribute to increased housing demand in San Francisco. Not all of the project's net new employees would seek housing in the City. Some new employees would choose to live outside of the City and others may currently live outside of the City and not necessarily change their residence location as a result of a new job location.

"San Francisco's Office Affordable Housing Production Program (OAHP) requires housing to be provided to offset the demand created by office development, for all projects including more than 50,000 gross sq.ft. of office space. On August 18, 1985, the Office Affordable Housing Production Program, Ordinance No. 358-85, became effective and is now contained in the Planning Code at Section 313. The program estimates that a demand for 0.386 housing units is created for each 1,000 gross sq.ft. of office space built. Based on this formula, the requirement for this project would be the development of 90 housing units,⁴ at least 62% of which must be affordable to households of low or moderate income for 20 years. An option available to the sponsor would be the payment of \$1,242,938 in lieu of development of housing units.⁵

"As part of the 90-unit requirement, 67 units have been approved via Section 313(h) of the Planning Code which provides that credits established under the OAHPP Interim Guidelines can be applied to a project sponsor's housing requirement under the OAHPP Ordinance on the basis of 2.3 Interim Guidelines credits for 1.0 housing unit under the Ordinance. The project sponsor received approval for 154 Interim Guidelines credits from the City Planning Director on April 8, 1985."

The following will replace footnote 4 on page 143 of the EIR:

"⁴This calculation is derived from the formula in Section 313(d) of the Planning Code (net square feet of additional office space) x 0.000386 = Housing Units. The fee payment, at Section 313(f), would be determined by multiplying \$5.34 x (net new square feet office space). For the 299 Second Street project, there would be 232,760 square feet of new office space. The 0.000386 factor is derived from a report entitled, 'The Economic Basis for an Office Housing Production Program in San Francisco,' prepared for the Department of City Planning by Recht Hausrath & Associates, dated July 19, 1984. The factor represents the consultants' determination that there will be 386 additional San Francisco households per addition of 1 million square feet of C-3 District office space from 1981-2000."

The following will replace footnote 5 on page 144 of the EIR:

"⁵The City Planning Code at Section 313(f), permits the payment of in lieu fees equal to \$5.34 x (net new square feet office space)."

COMMENT

"Page 6. Is the sponsor agreeing to the 207 units OHPP? They keep talking about 207 units. Way later in the EIR, it's clear that under the new ordinance it would be, I think 90, units instead of 207. Is the sponsor intending to do the 207 or some other kind -- you now, the new rules, if they come in. It's not clear what their intention is." (Susan Bierman, CPC)

RESPONSE

The project sponsor would comply with OAHPP guidelines in the manner described in the previous Response to Comment.

COMMENT

"I am also really troubled about this whole housing business and the rationale. I spoke of it last week and would like the same thing looked at, the rationale for the new OHPP guidelines which would make for so many less units of housing. I think that decisions have been made that would indicate too small a need for housing from these buildings. It makes no sense to me." (Susan Bierman, CPC)

RESPONSE

Although the new OAHPP Ordinance appears to decrease a project sponsor's housing obligation, the formulae contained in the existing and previous versions are not directly comparable. The previous guidelines allowed for a one-for-one credit for the number of bedrooms (e.g., a three-bedroom unit is credit as three units) or for multiple credits of two- (or more) for-one-for moderate- or low-income units. Thus, the actual number of units built or renovated may have been less than the number of units calculated as a project's housing demand under those Guidelines. Under the new ordinance, no multiple credits would be allowed. Hence, a requirement for 90 units would mean that either 90 units would be constructed or in lieu fees would be paid based on a 90 unit requirement. Additionally, at least 62% of all newly constructed or rehabilitated housing would have to be affordable to households of low or moderate income for 20 years.

The formula for computing the housing requirement in OAHPP was taken directly from the Recht Hausrath study, which calculated the amount of new housing necessary to mitigate increased housing demand generated by new office construction. The study is referenced in footnote 4, at page 143 of the DEIR.

At Section 313(f) of the OAHPP Ordinance, an in lieu fee is permitted, and calculated at \$5.34 x net addition of gross square feet of office space. Applying this formula to the project, the project sponsor could elect to contribute \$1,242,938.40 of in lieu fees under the OAHPP Ordinance. At Section 313(g) of the OAHPP Ordinance, a combination of construction and payment of an in lieu fee calculated at \$13,824.20 per unit is also permissible under certain circumstances. The total contribution of fees would be dependent on the number of units constructed.

COMMENT

"One more statement about the EIR. On Page 49, the Draft EIR talks about why offices, some firms, companies have moved their offices out to the suburbs. The inference is that it has to do with a shortage of space, as though San Francisco has not supplied enough office space for companies in the city. I think that that is not the complete picture. I think that you have to take into account that business decisions were made and that these companies went out there for reasons, among them looking for the segmental labor force, women who are at home who could work part time. It's not entirely a shortage of office space or a presumed shortage of office space in San Francisco." (Georgia Brittan, SFRG)

RESPONSE

The DEIR did not attempt to list all causes of increased office development in the suburbs. As stated on page 49 of the DEIR, one effect of the perceived shortage of office space in San Francisco has been the stimulation of office development in outlying areas.

In response to a perceived shortage of office space in San Francisco, and several other factors, business decisions have been made to locate office space in the region's suburbs. Among those factors are relatively lower land costs in suburban locations, the potential availability of local government financial assistance, lower property and related tax rates, and the presence of a labor force that is well suited for the clerical support and production positions to be located in outlying areas.

I. PUBLIC SERVICES

COMMENT

"The California Waste Management Board has no jurisdiction over commercial or office development; however the Board is deeply concerned with solid waste generation associated with growth areas in California. Consequently, we recommend including a discussion of solid waste management when preparing the Draft EIR.

"In order to assess the cumulative impact of growth and development on local solid waste facilities in this area, the following information should be provided and considered:

Environmental Setting

- A brief description of existing solid waste facilities, including collection, transfer, and method of disposal.
- The location, capacity and life expectancy of available landfills.

Environmental Impacts

- An estimated volume of waste material expected to be generated by the project, based on the proposed employee population projections. General purpose office facilities surveyed have generated 1.55 lbs/capita/day of mixed waste. Of this, .51 pounds is white ledger paper which is economically recyclable. Computer oriented operations may generate additional computer card and computer print out paper of high recyclable value.

Mitigation Measures

- A brief discussion of local plans for developing future disposal sites to accommodate the project's solid wastes.
- The Board encourages the reduction of solid waste through local recycling policies and resource recovery programs." (Odis Marlow, CWMB)

RESPONSE

When the Initial Study for this project was published, it indicated that Golden Gate Disposal Company would be capable of meeting the demand generated by the proposed development. Based upon that information, solid waste impacts were focused out of the EIR.

Subsequent to the publication of the Initial Study for this project, the San Francisco Downtown Plan EIR, which was certified in October of 1984, concluded that no significant solid waste impacts would result from the development anticipated in that Plan. Based upon this published information, solid waste impacts were not discussed in the Draft EIR, but only in the Initial Study. Because no significant adverse impacts were identified during the environmental review process, no mitigation measures are required.

The approach used to discuss solid waste impacts serves at least two purposes. First, it is more appropriate to analyze solid waste issues on a larger scale (as was done for the Solid Waste Management Plan and Downtown Plan) rather than on a project-by-project basis. Additionally, by not repeating the same information over and over again in several EIRs, the City and County of San Francisco is consistent with the State's goal of avoiding voluminous environmental review documents, where appropriate.

J. MITIGATION MEASURES**COMMENT**

"p. 156 There should be increased mitigation of transit. Why is not the TDIF increased to the full costs of \$9.70 as suggested by the Budget Analyst." (Georgia Brittan, SFRG)

RESPONSE

The Transit Impact Development Fee (TIDF) is intended to recover capital and operating costs of increased peak period transit service associated with new office construction (including conversions in use) in downtown San Francisco. At the time the ordinance was being considered by the Board of Supervisors, an analysis by Bruce Bernhard, chief financial analyst at MUNI, showed that the net costs of expanded Muni service to meet added peak period demand, using 1980-82 data, were \$9.18 per square foot of office space. The Board, in adopting the ordinance, set a ceiling for the Transit Fee of \$5.00 per square foot. The City's Budget Analyst did not make a recommendation to the Board of a specific fee level, nor did he advocate or discourage adoption of a fee per se.

Section 38.6 of the ordinance requires that the net cost estimate be reviewed annually and adjusted, subject to the limit of \$5.00 per square foot, to reflect changing costs of adding, operating and maintaining additional transit service. Subsequent to adoption of the ordinance, Touche Ross & Co., economic consultants to the City, analyzed the net costs as of the base fiscal year, 1980-81, and presented in its "Transit Impact Development Fee Cost Study" (June 27, 1983), a net cost figure of \$8.61 per square foot. A second analysis by Touche Ross using fiscal year 1981-82 data was published under the same title (dated July 1983, as corrected September 9, 1983); this updated study concluded a \$9.82 per square foot net cost.

The question of who should pay, and how much, for the impacts of downtown development on transit services is not an environmental issue. The decision is in the purview of the Board of Supervisors, as the elected officials of the people of San Francisco. It is the Board of Supervisors that is authorized to set the fee level. The Board has examined this issue, considered the findings of MUNI's finance and accounting experts, and set the fee at \$5.00 per square foot of new office development. The Board subsequently received the findings of the Touche Ross reports. The legislative body, however, has not chosen to

change the fee in its annual determinations. It has also not chosen to delegate the authority to establish the fee amount to any other City officials.

COMMENT

"p. 155. Mitigation Measures: Substitute current language for archaeological resources." (Jonathan Malone, LPAB)

RESPONSE

The following language will replace existing language for the Historic and Architecture Resources mitigation measure on page 155 of the EIR:

"The sponsor would retain the services of a qualified historical archaeologist. The Environmental Review Officer (ERO) in consultation with the President of the Landmarks Preservation Advisory Board (LPAB) and the archaeologist would determine whether the archaeologist should instruct all excavation and foundation crews on the project site of the potential for discovery of cultural and historic artifacts, and the procedures to be followed if such artifacts are uncovered.

"Should evidence of cultural or historic artifacts of significance be found during project excavation, excavation which could damage such artifacts would be halted. The archaeologist would assess the significance of the find and whether feasible measures, including appropriate security measures, could be implemented to preserve or recover such artifacts, and immediately report to the ERO and the President of the LPAB. The ERO would then recommend specific mitigation measures, if necessary.

"Copies of reports prepared according to this mitigation measure would be sent to the California Archaeological Site Survey Office at Sonoma State University. Excavation or construction that might damage the discovered cultural resources would be suspended for a maximum of four weeks (cumulatively for all instances that the ERO has required a delay in excavation or construction) to permit inspection, recommendation and retrieval, if appropriate."

K. ALTERNATIVES**COMMENT**

"Page 8, Paragraph 4, No Exceptions to the Downtown Plan. I couldn't understand it, and I went over it and over it. It says, 'No transferable developments rights would be used.' I just can't understand that whole designation, 'No Exceptions to the Downtown Plan.'

"The way it reads in the first paragraph, it sounds like TDRs would not be allowed on the site under the Downtown Plan. And I don't think that is the case. Maybe it should be headed 'No Exceptions to Interim Controls to Implement the Downtown Plan.' I am not being clear, but I have a problem with it. Maybe you can clarify it." (Susan Bierman, CPC)

RESPONSE

Alternative Four, No Exceptions to the Downtown Plan, was intended to reflect a project built to comply with the basic requirements of the Downtown Plan Ordinance, i.e., a project that would not exceed the base FAR of 6:1, and comply with all other provisions of the Ordinance. Use of TDRs is not an exception to the Downtown Plan Ordinance, but an elective action that can be taken by a project sponsor. Use of TDRs as part of a project is considered an option that is permitted under the Ordinance. Also, see discussion of TDRs under the Downtown Plan, above, at pages 181-187.

COMMENT

"I think that under alternatives, there should be an alternative that is a preservation alternative with building on the parking lot, especially in view of the possibility coming along that we are going to decide in this city -- or it looks like some people are starting to decide -- that we have to control growth. Under the current code, C-rated buildings count for something, or are supposed to. So I would like to see that kind of alternative.

"In the alternative that I was asking for of preservation, maybe you could look at what happens if you don't use the TDRs, if you use the parking lot, what comes out in the way of a project. I mean, using the parking lot and doing a project that is without TDRs, what kind of alternative can you come up with? Is that clear?" (Susan Bierman, CPC)

RESPONSE

The following alternative will be added on page 168 of the EIR:

"E. ALTERNATIVE FIVE: PRESERVATION OF THE EXISTING BUILDINGS.

"1. Description

"This alternative would retain the existing buildings on the site and locate a new building on the site of the existing parking lots (Figure 32, page 168a [page 272 of this document]). The existing buildings (590 Folsom Street, Lot 27 and 299 Second Street, Lot 29) contain a total of approximately 35,000 gsf of office space and 1,950 gsf of restaurant. The new building would have a site area of about 11,025 square feet and occupy a roughly "L-shaped" area. The new building would be a six-story, 75'-foot tall office/retail structure with no setbacks. This alternative would contain a total of 66,150 gsf, of which 11,025 gsf would be ground-floor retail uses and 55,125 gsf would be office space. One basement level would contain 74 parking spaces, the same as contained in the existing surface lots. The FAR would be 6:1 and no TDRs would be included in this alternative. The building's exterior design, like Alternative Three, would be simpler as there would be no arcade, or greenhouses. Unlike Alternative Three and the proposed project, Alternative Five would have no setbacks, peaked-roof design or penthouse. The base of the building would rise straight to the roof, which would be flat. 1,003 square feet of open space is required by the Downtown Plan. The project sponsor would provide this open space off-site at a location that is as yet undetermined.

"2. Impacts

"Visual, shadow and wind impacts would be reduced proportionately as the building would be 125 feet shorter than the 200-foot proposed project. At 75 feet, this alternative would be more compatible with the older, low- and mid-rise groups of buildings in the immediate area. This alternative would generate 72% fewer trips than the project. Noise, air quality and energy impacts would also be proportionately less. Construction noise impacts would be less than the proposed project due to a shorter construction period and the use of fewer foundation piles.

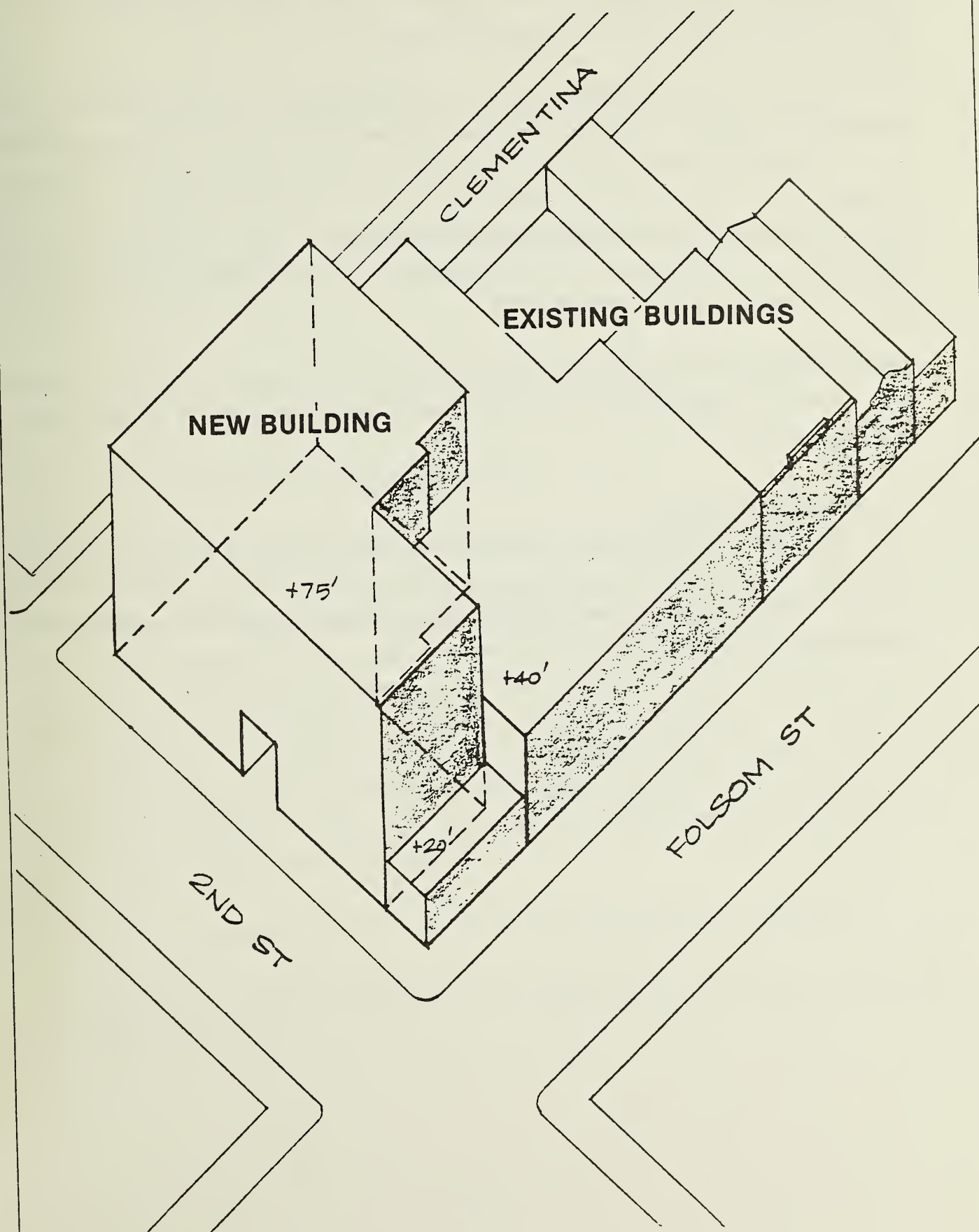
"Applying the OAHPP formula for computing the housing requirement, this alternative would generate a requirement for 49 housing units, 41 fewer than the 90 calculated for

ALTERNATIVE FIVE: PRESERVATION OF THE EXISTING BUILDINGS

FIGURE 32

SOURCE: KAPLAN/McLAUGHLIN/DIAZ

NOT TO SCALE



the proposed project. The present employees of the two existing buildings would not be displaced by new construction. This alternative would generate about 238 permanent jobs for office, retail and janitorial/service functions.

"This alternative would generate about 20% of the transportation impacts projected by the proposed project. Peak-hour auto trips would not be measurable within typical daily traffic fluctuations. Increased transit trips on Muni and other regional carriers would not be discernible. This alternative would remove the 74 surface parking spaces that now exist, and provide 74 spaces below-grade. Parking demand would be less than 50 short-and long-term spaces. This alternative would provide two freight loading spaces, as required by Code, accessible from Clementina Street.

"This alternative would preserve two Heritage "C"-rated buildings. A "C" rating indicates that a building is distinguished by its scale, materials, compositional treatment, cornice and other features.

"3. Reasons for Rejection

"This alternative was rejected by the project sponsor because it would not meet the objectives of maximizing the site's potential, since less than half the allowable area would be used. None of the development objectives of the sponsor, including a reasonable return on investment, would be met."

IV. STAFF-INITIATED TEXT CHANGES

Page 1: Second paragraph, lines 11-12: 15,805 gsf is the amount of excludable ground floor area, not total of ground floor uses. At line 12, insert the word "excludable" before the word "ground."

Page 2: Second paragraph, lines 2-3, delete "Interim Controls," and insert "the Planning Code".

Page 2: Last line, "through" should be "throughout".

Page 3: Second paragraph, delete entire paragraph, and insert the following:

"A wind tunnel test of the project vicinity indicates that existing winds would not exceed the 11 mph pedestrian comfort criterion established in the Downtown Plan. The project would cause wind speeds to increase at one of the 23 sidewalk locations monitored (by one mph), to decrease at 10 locations (by between one and two mph), and to remain the same at 12 locations. Within the outdoor eating and sitting areas along Second Street and Folsom Street winds would range from five to six mph, below the 7 mph criterion of the Downtown Plan. Neither existing winds nor winds with the proposed project would exceed the pedestrian hazard criterion (page 81)."

Page 4: First full paragraph, 6th line, replace "totaldemand" with "total demand".

Page 6: Delete the following statement: "o Satisfaction of OHPP requirement of 207 housing units (page 158)."

Page 8: Third paragraph, line 2, delete "Interim Controls to implement the".

Page 12: Last paragraph, line 2, delete "southwest", and insert "southeast".

Page 12: Insert the following paragraphs at the end of the Project Characteristics discussion:

"During the construction period, the project sponsor would initiate a series of steps to reduce traffic congestion in the project vicinity, especially on Clementina Street, subject to agreement by the Department of City Planning, Department of Public Works, MUNI, the City Fire Department, the building contractor, and adjacent property owners. These steps would be included as part of the conditions of project approval.

"The project sponsor would also retain a qualified Dust Control Coordinator (DCC) to manage offsite particulate matter emissions during the construction period.⁴ The DCC would file a Dust Control Management Plan (DCMP) with the City outlining specific actions to be taken to minimize emissions in the event of an offsite emissions complaint. This project feature would also be included as part of the conditions of project approval."

Page 19: Third paragraph, line 2, delete "Interim Controls to implement the Downtown Plan." and insert "Planning Code".

Page 19: Third paragraph, line 3, delete "The Interim Controls are" and insert "which is".

Page 20: Insert the following footnote after footnote 3:

"⁴The Dust Control Coordinator position (and Dust Control Management Plan (DCMP)) has been effectively used in other jurisdictions by Donald Ballanti, certified consulting meteorologist."

Page 24: First full paragraph, line 5, delete footnote "1".

Page 28: First paragraph, line 3, delete " "Controls", and insert "Planning Code".

Page 28: Fourth paragraph, delete lines 1 and 2, and insert "As a result of Proposition K, the Park Shadowing Initiative Ordinance, pursuant to Section 295 of the Planning Code building permit authorization would not be permitted for".

Page 28: Fifth paragraph, line 5, delete footnote "2".

Page 30: Second paragraph, line 3, delete footnote "3" and insert "1".

Page 30: Second paragraph, line 5, delete footnote "4" and insert "2".

Page 33: Footnotes 1 and 2, delete the entire text of the footnotes.

Page 33: Footnote 3, delete "3" and insert "1".

Page 33: Footnote 4, delete "4" and insert "2".

Page 38: Fourth and fifth paragraphs, delete both paragraphs, and insert the following:

"U.S. Weather Bureau data show that westerly (i.e., from the west) to northwesterly winds are the most frequent and strongest winds during all seasons in San Francisco.¹ Of the 16 primary wind directions measured at the Weather Bureau station (at a height of 132 feet), four directions comprise the greatest frequency of occurrence as well as the majority of strong wind occurrences. These are northwest, west-northwest, west and west-southwest, with occurrence rates of 10%, 14%, 35% and 2%, respectively, of the time between the hours of 6:00 a.m. to 8:00 p.m. throughout the year. The remaining 12 wind directions comprise the remaining 36% frequency of annual occurrence with lower wind speeds. Calm conditions occur two percent of the time.

"Average wind speeds are highest during the summer and lowest during winter months. However, strongest peak winds occur in winter, when speeds of 47 mph have been recorded.² The highest average wind speeds are in the mid-afternoon, and the lowest are in the early morning."

Page 39: Delete entire page, and insert the following:

"Between the hours of 7:00 a.m. and 6:00 p.m. on an annual basis, wind speeds measured at the Weather Bureau station exceed 21, 25, 21 and 18 miles per hour (mph) 10% of the time for northwest, west-northwest, west and west-southwest winds, respectively, while the 12 remaining wind directions exceed 15 mph 10% of the time.

"Pedestrian Comfort and Wind Criteria. Wind conditions partly determine pedestrian comfort on sidewalks and in other public areas. In downtown areas, high-rise buildings can redirect wind flows around buildings and divert winds downward to street level; each can result increased wind speed and turbulence at street level.

"The comfort of pedestrians varies under different conditions of sun exposure, temperature, clothing, and wind speed. Winds up to four mph have no noticeable effect on pedestrian comfort. With winds from four to eight mph, wind is felt on the face. Winds from 8 to 13 mph will disturb hair, cause clothing to flap, and extend a light flag mounted on a pole. For winds from 19 to 26 mph, the force of the wind will be felt on the body. At 26 mph to 34 mph wind, umbrellas are used with difficulty, hair is blown straight, there is difficulty in walking steadily, and wind noise is unpleasant. Winds over 34 mph increase difficulty with balance and gusts can blow people over.³

"In order to provide a comfortable wind environment for people in the Downtown, Section 148 of the Planning Code establishes an equivalent (includes the effects of turbulence) windspeed (as defined in the code) of seven and 11 mph as comfort criteria and 26 mph as a wind hazard criterion. Section 148 sets comfort levels of seven mph equivalent wind speed for public seating areas and 11 mph equivalent wind speed for areas of substantial pedestrian use. New buildings and additions to buildings may not cause ground level winds that would exceed these levels more than 10% of the time between 7:00 a.m. and 6:00 p.m. year round.⁴ If existing wind conditions exceed the comfort level, new buildings and additions shall be designed to reduce ambient wind speeds to meet the requirements.

"A building may qualify for an exception to the standard that would allow it to add to the amount of time the comfort level is exceeded by the least practical amount if 1) it can be

shown that the building or addition cannot be shaped and other wind baffling measures cannot be adopted to meet the foregoing requirements without creating an unattractive an ungainly building form and without unduly restricting development of the building site in question, and 2) it is concluded that, because of the limited amount by which the comfort level is exceed, the addition is insubstantial. No building or addition that would cause wind speeds to exceed the 26 mph hazard level for more than a single hour of any year would be permitted.

"Existing and project generated wind conditions are discussed in detail in Chapter IV, Environmental Impact, p. 81 and Appendix G, page A-55 of the EIR.

¹The U.S. Weather Bureau data used in this analysis were originally gathered at the weather station atop the old Federal Building at 50 United Nations Plaza during the years 1945-1950. Data were taken hourly, annually for 16 wind directions. The data base comprised of 32,795 hourly observations, is of sufficient length to provide a reliable estimate of future climatic conditions of San Francisco.

²E. Jan Null, Climate of San Francisco, NOAA Technical Memorandum, NWS WR-126, February 1978.

³Lawson, T.V., and A.D. Penwarden 1976, "The Effects of Wind on People in the Vicinity of Buildings," Proceedings of the Fourth International Conference on Wind Effects on Buildings and Structures, London, 1975, Cambridge University Press, Cambridge, U.K., 605-622.

⁴Section 148 of the Planning Code specifies the hours of 7:00 a.m. to 6:00 p.m. The available weather data that cover that interval cover the hours of 6:00 a.m. to 8:00 p.m. Thus, observations from these two additional evening hours and one additional morning hour are included in these data. Because, in general, winds are stronger in the afternoon and evening than in the morning, this approximation is conservative -- it is likely to overestimate the existing and project wind speeds."

Pages 45-47: Delete Air Quality Setting section, and insert the following:

"C. AIR QUALITY

"The Bay Area Air Quality Management District (BAAQMD) operates a regional monitoring network which measures the ambient concentrations of six air pollutants:

ozone (O_3), carbon monoxide (CO), total suspended particulates (TSP), lead (Pb), nitrogen dioxide (NO_2), and sulfur dioxide (SO_2). On the basis of the monitoring data, the Bay Area, including San Francisco, currently is designated a non-attainment area with respect to the federal ozone and CO standards. A three-year summary of the data collected at the BAAQMD monitoring station nearest the project site (about two miles south-southeast of the site at 900 23rd Street) is shown in Appendix F, page A-52, together with the corresponding federal and/or state ambient air quality standards. In 1984, there was one violation of the federal and state one-hour average ozone standards, one violation of the federal and state eight-hour CO standard, and five violations of the previous state 24-hour average TSP standard; in 1983 there was one violation of the federal and state eight-hour standard, and four violations of the previous state 24-hour average TSP standard; and in 1982 there was one violation of the federal and state eight-hour CO standard, and three violations of the state 24-hour average TSP standard.¹

"BAAQMD has conducted two CO "hotspot" monitoring programs in the Bay Area, including San Francisco. One CO hotspot monitoring program was conducted during the winter of 1979-80 at the intersection of Washington and Battery Streets in San Francisco, about .75 miles northwest of the site.² The high eight-hour average concentration was 10.1 ppm, which violates the 9-ppm state and federal standards by 1.1 ppm. The high one-hour average concentration of 15 ppm does not violate the 20-ppm state standard or the 35-ppm federal standard. Another CO hotspot monitoring program was conducted during the winter of 1980-81 at the intersection of Geary and Taylor Streets, about one mile northwest of the site, and 100 Harrison Street at Spear, about one-half mile east of the site.³ At Geary and Taylor the observed high eight-hour average concentration was 11.5 ppm which violates the standards by 2.5 ppm and the high one-hour concentration was 15 ppm which does not violate the standards. At Harrison Street the observed high eight-hour and one-hour average concentrations were 7.8 ppm and 13 ppm, respectively, which do not violate the standards. These data indicate that locations in San Francisco near streets with high traffic volumes and congested flows may experience violations of the eight-hour CO standard during adverse meteorological conditions. In December 1985, the City monitored CO and counted traffic at the Sixth and Brannan intersection. The data are still being analyzed.

"Comparison of these data with those from other BAAQMD monitoring stations indicates that San Francisco's air quality is among the least degraded of all the developed portions of the Bay Area. Three of the four prevailing winds, west, northwest and west-northwest, blowing off the Pacific Ocean, reduce the potential for San Francisco to receive pollutants from elsewhere in the region.

"San Francisco's air quality problems, primarily CO and TSP, are due largely to pollutant emissions from within the City. CO is a non-reactive pollutant with one major source category, motor vehicles. CO concentrations are generally highest during periods of peak traffic congestion. TSP levels are relatively low near the coast, increase with distance inland, and peak in dry, sheltered valleys. The primary sources of TSP in San Francisco are demolition and construction activities, and motor vehicle travel over paved roads.

"San Francisco contributes to air quality problems, primarily ozone, a regional problem, in other parts of the Bay Area. Ozone is not emitted directly from sources, but is produced in the atmosphere over time and distance through a complex series of photochemical reactions involving hydrocarbon (HC) and nitrogen oxide (NOx) emissions, which are carried downwind as the photochemical reaction occurs. Ozone standards are exceeded most often in the Santa Clara, Livermore, and Diablo Valleys, because local topography and meteorological conditions favor the build up of ozone and its precursors there.

"In 1982, emissions from motor vehicles were the source of 86% of the CO, 46% of the HC, 44% of the TSP, and 56% of the NOx in San Francisco, while power plant fuel combustion was the largest single source of sulfur oxides, about 33% of the total.⁴ These percentages are expected to apply reasonably well to current conditions.

"In response to the Bay Area's ozone and CO non-attainment designations, the Association of Bay Area Governments (ABAG), BAAQMD, and the Metropolitan Transportation Commission (MTC) prepared and adopted the 1982 Bay Area Air Quality Plan, which establishes pollution control strategies to attain federal ozone and CO standards by 1987 as required by federal law.⁵ These strategies were developed on the basis of detailed subregional emission inventories and projections, and mathematical models of pollutant behavior, and consist of stationary and mobile source emission controls and transportation

improvements. The BAAQMD, MTC, and California Bureau of Automotive Repair (a state agency) have primary responsibility for implementation of these strategies.

¹ State standards for particulate matter changed in 1983 to concentrate on fine particulate matter which has been demonstrated to have health implications when inhaled. Concentration standards also changed. There is not yet an adopted method for monitoring fine particulate matter. Until the State adopts a method, it is not possible to determine what proportion of TSP in San Francisco would be subject to review against the new standards.

² Association of Bay Area Governments, AQMP Tech Memo 33, "Summary of 1979/1980 Hotspot Monitoring Program," Berkeley, California, June 1980.

³ Association of Bay Area Governments, AQMP Tech Memo 40, "Results of the 1980/1981 Hotspot Monitoring Program for Carbon Monoxide," Berkeley, California, January 1982.

⁴ Bay Area Air Quality Management District (BAAQMD), Base Year 1982 Emissions Inventory, Summary Report San Francisco, California, November 1, 1982.

⁵ Association of Bay Area Governments (ABAG), BAAQMD and MTC, 1982 Bay Air Quality Plan, Berkeley, California, December 1982."

Page 48: Last paragraph, delete "5" from the end of the last sentence, and insert "5" at the end of the second sentence.

Page 48: Last paragraph, delete last two sentences and replace with the following: "The current vacancy rate is estimated to be about 17%.^{5-A}"

Page 52: Insert the following at the top of the page:

^{5-A} City and County of San Francisco, San Francisco Office Development Limitation Program, First Review Period, March 20, 1986.

Page 58: First paragraph, line 1, delete "102.8(b)14", and insert "102.8(b)7".

Page 58: Fifth paragraph, lines 1-2, delete "as amended by the Downtown Plan Interim Controls".

Page 59-62: Table 2. The table has been revised to reflect changes in the Planning Code. The revised table appears at pages 283-286 of this document, and replaces the table appearing at pages 59-62 of the EIR.

Page 64: Footnote 3, delete "Amendments to the Planning Code to Implement the Downtown Plan (Interim Controls), November 29, 1984", and insert "City Planning Code at".

Page 73: Figure 20. The figure has been revised to reflect the addition of the Marathon project at the corner of Second and Folsom Streets, as well as refinement of the project's height and relationship to the 611 Folsom Street building. The revised figure appears at page 287 of this document, and replaces the figure appearing at page 73 of the EIR.

Page 76: Figure 21. The "Second Street" shown in the figure is incorrectly labeled, and is in fact Montgomery Street. The figure has been revised to show the correct labelling, appears on page 288 of this document, and replaces the figure appearing at page 76 of the EIR.

Page 80: Figure 25. Insert "3:00 P.M." below bottom diagram.

Page 81: Delete entire page, and insert the following:

"2. Wind¹

Prevailing winds in San Francisco are from the northwest, west-northwest, west and west-southwest. Wind tunnel measurements were made at 26 surface locations near or within the project site for each of the prevailing wind directions using a scale model of the site, the project and vicinity. The study included separate tests of northwest, west-northwest, west and west-southwest winds under the existing conditons (the approved 35 Hawthorne Street, 75 Hawthorne Street and the Marathon/Second and Folsom projects were included in the existing scenario), and future conditions with the project in place.

"TABLE 2
COMPARISON OF THE PROJECT TO PLANNING CODE

<u>"Development Control</u>	<u>Planning Code</u>	<u>Project</u>
Base FAR (Section 124)	6:1 (base) 18:1 (max.)	9.4:1 ¹ (Through the use of TDRs at Section 128 of Planning Code
Height Limit (Exhibit B)	200'	200'
Bulk (Section 270)		
<u>Base</u> Height		
<u>Lower Tower</u> Maximum Diagonal	Up to 1.25 x width of the street (Second Street = 80'); full site coverage up to 100' from 100' - 160' 190'	Project would conform to Planning Code; full site coverage up to 50' from 50' - 162.5' 196'
Maximum Width	160' max. ave. floor space = 20,000 gsf from 160' - 200'	158' max. ave. floor area = 19,250 gsf
<u>Upper Tower</u>		from 162.5' - 200' (Project exceeds bulk limits of Planning Code for upper tower from 160' to 162.5')
Maximum Diagonal	160'	152'
Maximum Width	130' max. ave. floor size = 12,000 gsf max. floor size = 17,000 gsf	133' max. ave. floor size = 12,760 max. floor size = 15,700 gsf
(continued)		

"TABLE 2
COMPARISON OF THE PROJECT TO PLANNING CODE

<u>"Development Control</u>	<u>Planning Code</u>	<u>Project</u>
Setbacks (Section 132.1)	15' setback on east side of project site	Project would include a setback of 10' along the interior lot line, 5 feet less than the required 15', but could be allowed by Conditional Use authorization pursuant to exception provision in Section 132.1(c).3.
Wind (Section 148)	On Clementina Street: minimum 4' sidewalk widening, 14' setback at streetwall height of 60'	Project would conform to Planning Code
Exclusion of Floor Area (Section 102.8(b)13)	11 mph in pedestrian areas; 7 mph in public seating areas Up to 75% of interior floor area and ground level open space permitted for exclusion from FAR is allowed, not to exceed 5,000 gsf per use.	Project would conform to Planning Code 26,027 sq. ft. of ground floor uses; up to 19,520 gsf can be excluded from FAR calculation, including restaurant and retail space. Project would exclude 5,000 gsf of retail space and 5,000 gsf of restaurant space.
(Section 102.8(b)14)	All open space required by Section 138 (see below).	Project would exclude 6,435 gsf of open space.
Recreation/Open Space (Section 138)	1 sq. ft. open space/50 gsf of gross floor area = 5,805 sq.ft.	Project would include 6,435 sq.ft., in exceedance of the Planning Code requirement.

(continued)

"TABLE 2
COMPARISON OF THE PROJECT TO PLANNING CODE

<u>"Development Control</u>	<u>Planning Code</u>	<u>Project</u>
Parking (Sections 204.5(c), 157, 158, and 303 of Planning Code and Interim Controls)	Planning Code has no requirement (Discourages new long-term parking in downtown). 7% of gsf = 23,035 allowed as accessory use.	131 short-term, independently accessible spaces, or 45,735 gsf. 23,035 gsf (66 spaces) allowed as accessory use; 22,700 gsf (65 spaces) considered as Conditional Use.
Off-street Loading (Section 152.5)	0.1 spaces per 10,000 gsf of office space; 1 space per 10,000-30,000 gsf of restaurant/retail space. 4 spaces are required.	3 full-size and 2 service vehicle spaces provided ²
Incorporation of Art (Section 149)	Art equal to 1% of total construction costs.	Project would conform to Planning Code.
Shadows on Property Under Jurisdiction of Recreation and Park Commission (Section 295)	No shadows cast on Recreation and Park Department property between first hour after sunrise and last hour before sunset.	Project would conform to Planning Code.

(continued)

"TABLE 2
COMPARISON OF THE PROJECT TO PLANNING CODE

<u>"Development Control</u>	<u>Planning Code</u>	<u>Project</u>
Transportation Management Programs (Section 163)	Provision of transportation brokerage services for projects with at least 100,000 gsf of office space.	Project would conform to Planning Code.
Vertical Extensions (Section 260(b)(1)(G))	Vertical extensions, such as spires, permitted up to 75 feet above the height otherwise allowed.	Project would conform to Planning Code.
Mechanical Penthouse (Section 260(b)(1)(F))	Not to exceed 20 feet above the height otherwise allowed, measured at the average height of the slope of the rooftop (Section 260(a)(2)).	Project mechanical penthouse equal to 20' in height.

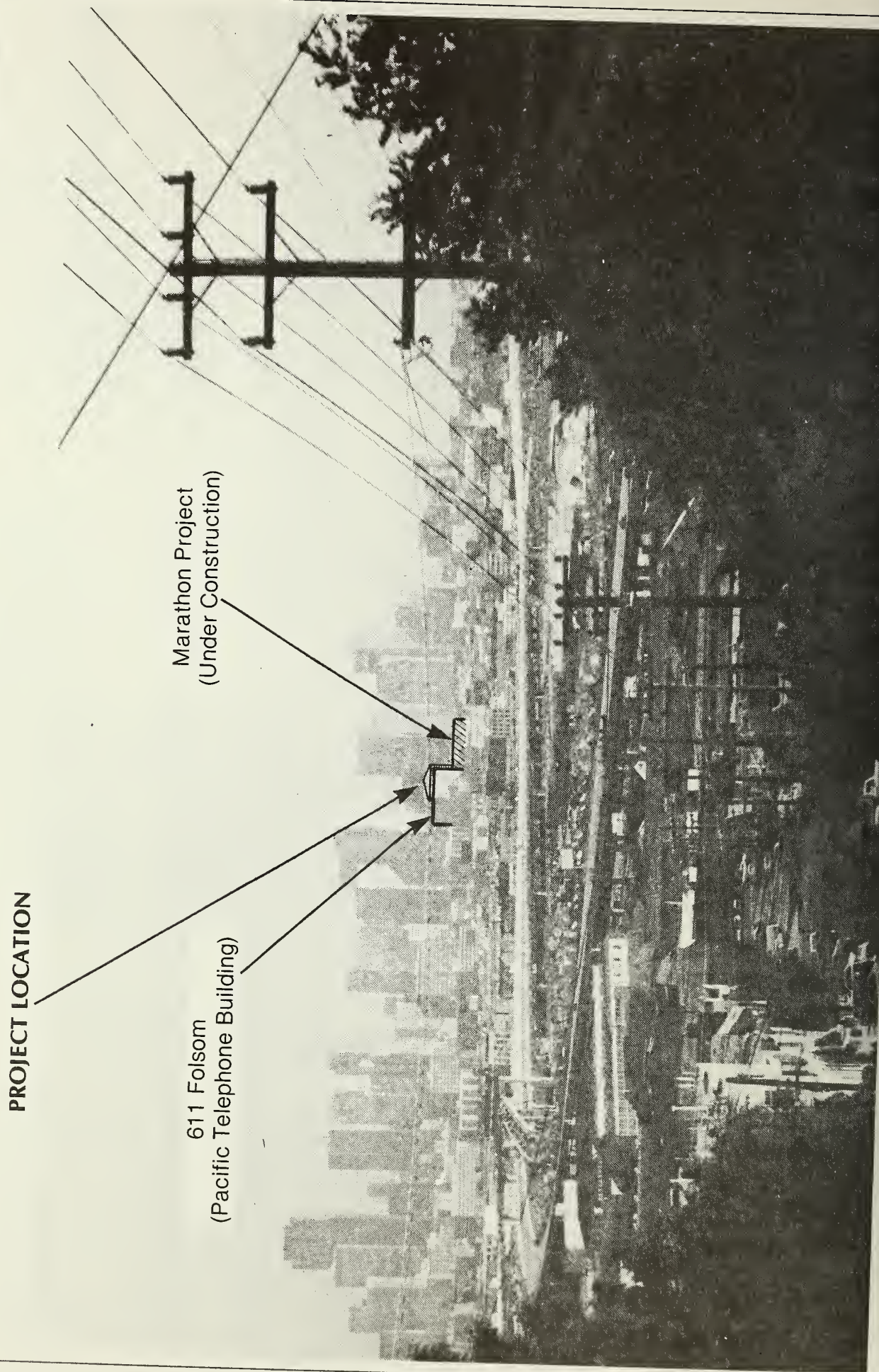
¹The Downtown Plan restricts ground floor uses in the C-3-O district to: retail; building circulation; open space features; pedestrian circulation; cultural, religious, social service, recreational and educational facilities available to the general public; and building service. Uses other than open space can be excluded from calculations of allowable gross floor area, up to 75% of the interior floor area and not to exceed 5,000 gsf per use. One hundred percent of ground level open space can be excluded. As calculated under the Downtown Plan, the project FAR would be 9.4:1.

²Planning Code Section 153(a)6 allows substitution of two service vehicle spaces for one full-size space."

VIEW OF PROJECT FROM POTRERO HILL

FIGURE 20

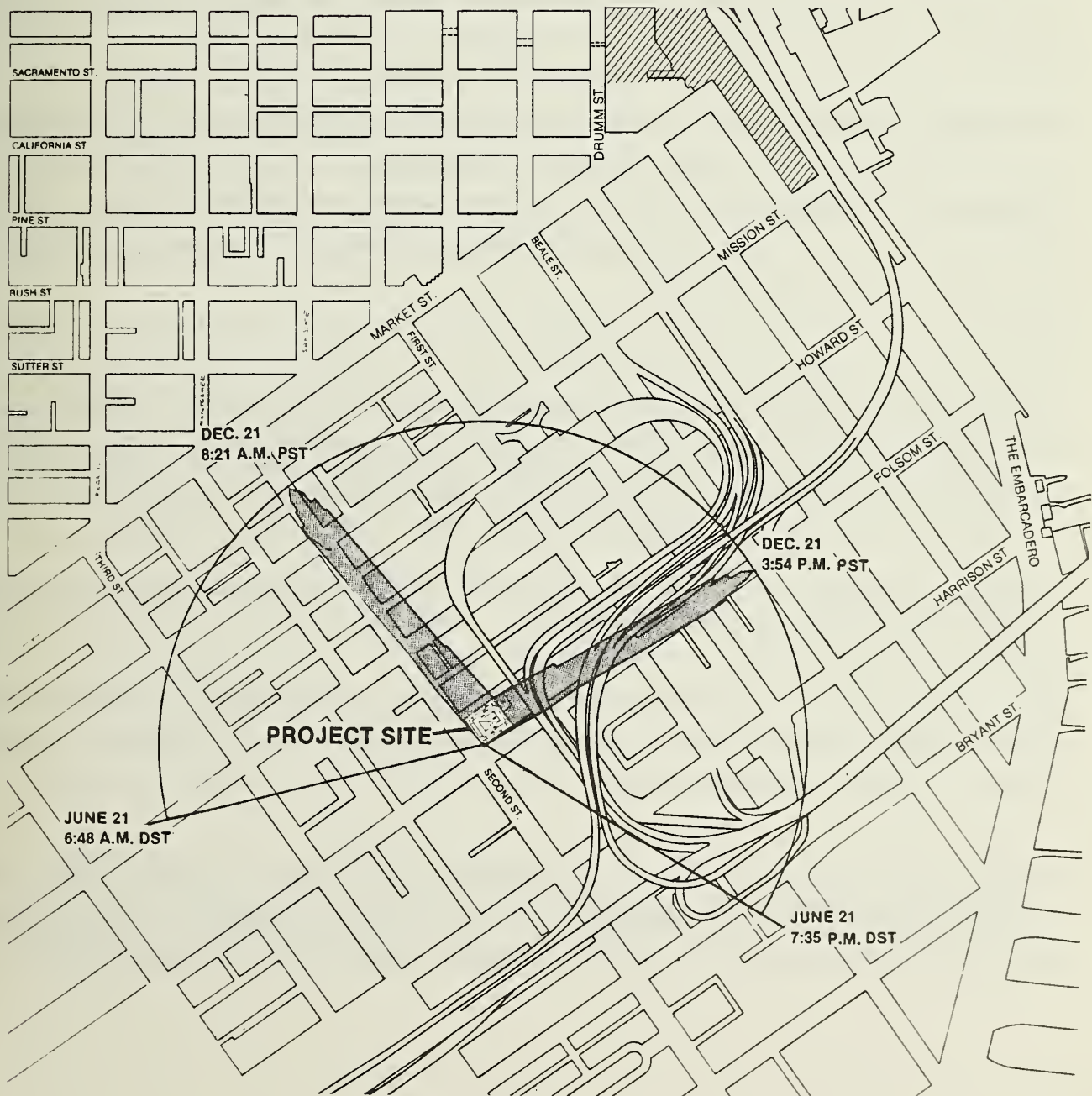
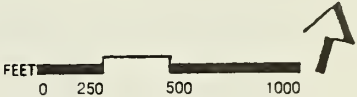
SOURCE: EIP CORPORATION



RECREATION AND PARK DEPARTMENT PROPERTY
SUBJECT TO PROPOSITION K IN PROJECT VICINITY



SOURCE: EIP CORPORATION



"Wind test data were combined with wind records to predict the wind speeds that would be exceeded 10% of the time at each test location. The predicted winds were then compared to the comfort and hazard criteria in the Planning Code, established in the Downtown Plan. (See Appendix G, page A-55 for a summary of the full wind analysis.) Throughout the following discussion, the wind speeds reported refer to the equivalent wind speeds that would be exceeded 10% of the time.²

"Existing wind speeds are 5 mph to 8 mph at the 23 sidewalk locations tested. (See Appendix G, Figure G-1, page A-60, for a figure showing the locations of, and wind speeds at, the test points. Existing winds at all of these locations meet the 11 mph comfort criterion.

"The project would cause wind speeds to increase at one of the 23 sidewalk test locations, to remain the same at 12 locations, and to decrease at 10 locations. Winds within sidewalk areas would meet the 11 mph comfort criterion for pedestrian areas. At the three measurement locations within sitting areas created by the project, winds would be below the 7 mph comfort criterion.

¹This section is based on a study entitled "Supplementary Wind Tunnel Analysis for the Proposed 299 Second Street Project," February 1986, prepared by Environmental Impact Planning Associates. A summary of the report is included in Appendix G, page A-55; the complete report is on file and available for public review at the Department of City Planning, Office of Environmental Review, 450 McAllister St., Sixth Floor.

²Equivalent windspeed is an hourly wind speed adjusted to incorporate the effects of gustiness or turbulence on pedestrians."

Page 93: To correct an error in the DEIR and to clarify any ambiguity, the word "OUTBOUND" is deleted from the title of Table 5, page 93 of the DEIR, and the first sentence of note 2 is amended to read:

"²Inbound and outbound travel resulting from activity in the C-3 District, from Table IV.E.1, page IV.E.25 of the Downtown Plan EIR. (In some instances, these estimates include non-C-3 travel which cannot be separately identified.) The analysis used in the

Downtown Plan EIR also assumes growth in travel outside the C-3 District, from other City locations and from regional locations, that is not shown above; it is discussed in the remainder of the section."

The revised table appears at page 291 of this document, and replaces the table at page 93 of the DEIR.

Pages 96: Insert the following after the word "TRANSIT":

"Table 6 (page 97) shows the transit demands expected from the projects on the list and under the forecast methodology have compared both to projected 1990 capacity conditons and to year 2000 capacity conditions. The primary reason for providing both 1990 and 2000 analyses is that there are no available projections of transit system capacities for the mid-1990s, when buildout and absorption of the list projects are expected. Thus, the data in the "Cumulative List + 1984" columns are intended to describe the foreseeable range of transit impacts under the list-based analysis.

"The data dervied from year 2000 capacity figures is considered to be a more realistic representation of future impacts than that derived from 1990 capacity figures for several reasons. First, the capacity projections for the year 2000 are conservative ones; transit agency plans for capacity increases that were determined to be somewhat more speculative were not included in assumed capacities. Second, the list-based method utilizes single-use trip generation rates, thereby adding each trip as if it were a new trip inor out of the downtown. Consequently, the total number of peak-hour trips are overestinted under this method. Thus, while the column which presents the impacts of the list-based transit demand in relation to year 2000 capacity projections may slightly understate actual impacts, that assessment is considered to be more accurate than the impact assessment using 1990 capacity projections due to the fact that capacity projections are conservative and demand projections are overstated.

"In addition, it should be noted that the results of the transit impact analyses using the 1990 and year 2000 capacity projection assumptions do not differ significantly. Assuming year 2000 capacities, only two Muni corridors would not meet "acceptable" loadings. This

TABLE 5: COMPARISON OF LIST METHOD AND DOWNTOWN PLAN FORECAST METHOD --
P.M. PEAK-HOUR CUMULATIVE TRAVEL DEMAND FOR THE C-3 DISTRICT

Mode of Travel	3/22/85 List ¹	Downtown Plan (1984-2000) ²	Alternative 1 (1984-2000) ²	Alternative 2 (1984-2000) ²	Alternative 3 (1984-2000) ²	Alternative 4 (1984-2000) ²	Alternative 5 (1984-2000) ²
Work Person Trip-ends	24,199	41,400	47,600	46,200	44,400	39,100	39,700
Other Person Trip-ends	6,955	12,100	14,700	14,200	13,400	11,800	11,800
Total Person Trip-ends	31,154	53,500	62,500	60,500	57,900	51,000	51,600
Muni Northeast	900	1,600	1,700	1,600	1,600	1,700	1,700
Northwest	4,000	1,800	2,000	1,900	1,800	1,800	1,800
Southwest	3,200	1,100	1,100	1,000	900	800	800
Southeast	700	1,100	1,000	1,000	1,000	600	700
BART Transbay	4,600	11,800	13,300	13,100	12,700	11,300	11,300
Westbay	1,800	2,400	2,800	2,700	2,600	2,300	2,300
AC Transit	2,000	200	600	500	300	-100	-100
GGT Bus	1,100	3,200	3,700	3,600	3,500	2,700	3,100
Ferry	300	800	800	800	800	800	800
Sam Trans	300	1,200	1,300	1,300	1,200	1,000	1,100
SPRR/CalTrain	500	1,800	2,000	1,900	1,800	1,700	1,700
Regional Auto ³							
Golden Gate Bridge	380	410	630	590	540	390	370
Bay Bridge	1,030	1,250	1,550	1,540	1,510	1,060	1,110
Bayshore Freeway (U.S. 101)	480	470	650	620	590	400	400
Interstate 280	480	470	650	620	590	400	400

¹ Travel from only those projects on the list that are located inside the C-3 District. The list also contains development located in the greater downtown area outside the C-3 District; travel from those projects has been included in the list-based travel shown in the remainder of this section.

² Inbound and outbound travel resulting from activity in the C-3 District, from Table IV.E.1, page IV.E.25 of the Downtown Plan EIR. (In some instances, these estimates include non-C-3 travel which cannot be separately identified.) The analysis used in the Downtown Plan EIR also assumes growth in travel outside the C-3 District, from other City locations and from regional locations, that is not shown above; it is discussed in the remainder of this section.

³ Vehicle trip-ends; calculation made on the basis of 2.7 persons per carpool and 12 persons per vanpool. Person trip-ends on transit cannot be added to vehicle trip-ends to obtain total person trip-ends because of the varying numbers of persons per vehicle.

Source: Environmental Science Associates, Inc. and EIP Associates

is also true assuming 1990 capacities, with the exception that BART transbay would slightly exceed BART's "acceptable" loadings of 1.5 passengers per seat."

Pages 97-98: For further discussion, in Table 6, pages 97-98, note 1 is added as follows, designated at the table title, with all other notes renumbered in sequence:

"¹The 1984, 1990 and 2000 columns and 1990 and 2000 capacities are derived from the Downtown Plan EIR, summarized in Table IV.E.2, page IV.E.29 of that EIR."

The revised table appears at page 293 of this document, and replaces the table at pages 97-98 of the DEIR.

Page 103: Delete the third paragraph, and insert the following:

"On April 27, 1981, the San Francisco Board of Supervisors approved Ordinance 224-81 establishing the Transit Impact Development Fee (TIDF) to support the additional operating costs and capital improvements for Muni transit services associated with new downtown commercial development. The ordinance established a one-time fee of up to \$5 per gross sq.ft. upon occupancy of new office space within the greater downtown area; the 299 Second Street project site is located within the fee assessment area. The TIDF ordinance has been in litigation almost since its inception. On January 4, 1985, the San Francisco Superior Court issued a final decision upholding the ordinance. On March 12, 1985, the plaintiffs, a group of downtown property owners, appealed. Money has been collected pursuant to the ordinance, and is being deposited in an escrow account, pending resolution of the litigation. Under the ordinance, the project would generate about \$1,163,800 in one-time fee revenues to Muni.⁹ The fee is intended to recover additional transit costs for the entire economic life of a building, and thus cannot be compared directly to the annual Muni deficit discussed above. The fees collected under the ordinance would, however, reduce the amount of General Fund revenue support necessary for existing and future Muni operations."

Page 113: Third paragraph, line 3, insert "." following City Planning Code".

Page 113: Third paragraph, line 4, delete "(Interim Controls adopted November 19, 1984)".

TABLE 6: OUTBOUND REGIONAL TRANSIT DEMAND AND LEVEL OF SERVICE¹

Transit Agency	1984			1990			1984+CUMULATIVE LIST (Using 1990 Capacity)			2000			1984 + CUMULATIVE LIST (Using 2000 Capacity)			
	Riders	P/S ²	LOS ³	(Downtown Plan EIR)			(Using 1990 Capacity)			(Downtown Plan EIR)			(Using 2000 Capacity)			
				Demand	P/S	LOS	Demand	P/S	LOS	Demand	P/S	LOS	Demand	P/S	LOS	
																Percent ⁴
P.M. Peak Hour																
Muni																
Northeast	7,100	1.16	D	7,900	1.13	D	8,600	1.23	D	8,800	1.05	D	8,600	1.03	D	0.6
Northwest	8,200	1.26	E	9,200	1.26	E	13,500	1.85	F	10,100	1.25	D	13,500	1.67	F	0.9
Southwest	13,500	1.45	E	15,100	1.44	E	17,900	1.71	F	16,600	1.42	E	17,900	1.53	F	0.6
Southeast	5,300	1.06	D	6,200	1.03	D	6,500	1.08	D	7,400	1.01	D	6,500	0.89	C	0.4
BART																
Transbay	16,100	1.53	F	20,500	1.42	E	22,200	1.54	F	27,900	1.42	E	22,200	1.13	D	0.9
Westbay	7,700	1.10	D	8,800	1.26	D	10,100	1.45	E	10,100	1.06	D	10,100	1.06	D	0.8
AC Transit																
GGT Bus	9,100	0.94	C	10,500	1.08	D	11,800	1.21	D	10,500	1.08	D	11,800	1.21	D	0.6
GGT Ferry	5,300	1.00	C	6,600	0.86	C	6,800	0.89	C	8,500	0.91	C	6,800	0.73	B	0.9
Tiburon Ferry	800	0.57	B	1,100	0.28	A	1,200	0.31	A	1,500	0.38	A	1,200	0.30	A	0.9
SamTrans	200	0.40	A	200	0.40	A	200	0.40	A	300	0.60	B	200	0.40	A	--
CalTrain	1,900	1.12	D	2,400	1.20	D	2,400	1.20	D	3,100	1.19	D	2,400	0.92	C	1.0
	3,100	0.61	B	4,000	0.65	B	3,800	0.62	B	4,900	0.79	C	3,800	0.61	B	1.0
P.M. Peak Period																
Muni																
Northeast	12,600	1.06	D	13,900	1.01	D	15,300	1.11	D	15,500	0.95	C	15,300	0.94	C	0.7
Northwest	13,100	1.13	D	14,100	1.07	D	21,400	1.62	F	15,300	1.05	D	21,400	1.47	E	0.9
Southwest	23,300	1.31	E	26,000	1.29	E	30,300	1.50	E	28,700	1.29	E	30,300	1.36	E	0.7
Southeast	9,100	1.00	C	10,300	0.95	C	11,100	1.02	D	12,100	0.88	C	11,100	0.81	C	0.5
BART																
Eastbay	25,800	1.54	F	32,600	1.42	E	35,400	1.54	F	44,100	1.40	E	35,400	1.12	D	0.9
Westbay	11,300	0.80	C	12,800	0.91	C	15,000	1.07	D	14,600	0.77	C	15,000	0.79	C	0.7
AC Transit																
GGT Bus	14,000	0.95	C	17,000	1.16	D	18,200	1.24	D	17,000	1.16	D	18,200	1.24	D	0.6
GGT Ferry	7,600	0.90	C	9,500	0.77	C	10,000	0.81	C	12,200	0.81	C	10,000	0.66	B	0.9
Tiburon Ferry	1,000	0.56	B	1,400	0.27	A	1,700	0.33	A	1,700	0.33	A	1,700	0.33	A	0.8
SamTrans	300	0.60	B	400	0.80	C	400	0.90	C	500	1.00	C	400	0.80	C	--
CalTrain (SPRR)	2,900	1.12	D	3,400	1.13	D	3,600	1.20	D	4,500	1.15	D	3,600	0.92	C	1.1
	4,500	0.68	B	5,200	0.64	B	5,600	0.69	B	6,200	0.77	C	5,600	0.70	B	0.8

¹The 1984, 1990 and 2000 columns and 1990 and 2000 capacities are derived from the Downtown Plan EIR, summarized in Table IV.E.2, page IV.E.29 of that EIR.

²Passengers per seat is the ratio of total demand to seated capacity.

³Level of service is scale ranging from A to F that relates P/S ratios to passenger loading conditions on transit vehicles (see Table C-1, Appendix C).

⁴The percent of demand generated by the project.

Source: Environmental Science Associates, Inc. and EIP Associates

Pages 116-123: Delete Air Quality Impacts section, and insert the following:

"C. AIR QUALITY

"Upon completion, the project would affect air quality in two ways. Emissions would be generated by project-related traffic, and by combustion of natural gas for building space and water heating. Transportation sources would account for over 95% of project-related emissions.

"Table 7 shows projected daily emissions of pollutants in 2000 from project-generated traffic for new development in the greater downtown projected by both the cumulative list and the Downtown Plan EIR (EE81.3, certified October 18, 1984), and total emissions projected for the entire Bay Area in 2000 by the 1982 Bay Area Air Quality Plan. The project would contribute about 2% to the emissions generated by new development in the greater downtown, in 2000.¹

"Nitrogen oxides (NOx) and hydrocarbons (HC) are both chemical precursors of ozone. Motor vehicles emit more NOx than HC, and the emissions from building natural gas combustion would consist primarily of NOx. As demonstrated by the LIRAQ (Livermore Regional Air Quality model) regional ozone computer simulations performed for the 1982 Bay Area Air Quality Plan, an increase in the future NOx emissions compared to HC emissions would lead to a decrease in ozone compared to present levels. This model has also shown that Bay Area ozone concentrations are expected to be within the federal standard in 1987, and thereafter. As the future NOx emissions from cumulative development in San Francisco would exceed future HC emissions, this development would not lead to an increase in total Bay Area ozone concentrations.

"At the same time, total emissions of both NOx and HC are expected to decrease in San Francisco. Total NOx emissions would decrease in San Francisco by about two percent from 1984 to 2000, but would increase in the Bay Area by about five percent from 1984 to 2000. It is possible that excess NOx emissions generated by cumulative development (including the project) could increase ozone and/or nitrogenous oxidant concentrations further downwind, outside the Bay Area. In addition, NOx emissions generated by cumulative development (including the project) throughout the Bay Area could increase

"TABLE 9

PROJECTED DAILY POLLUTANT EMISSIONS

<u>Pollutant</u>	<u>Project</u> <u>1990</u>	<u>Cumulative</u> <u>List</u> <u>1990</u> ²	<u>Emissions (tons per day)</u> ¹			
			<u>Downtown Plan</u> ³		<u>Bay Area</u> ⁴	
			<u>1990</u>	<u>2000</u>	<u>1990</u>	<u>2000</u>
Carbon Monoxide	.09	17.0	6.8	6.6	1,952	1,883
Hydrocarbons	.01	1.4	0.6	0.6	428	428
Nitrogen Oxides	.01	1.8	0.8	0.8	558	610
Sulfur Oxides	.001	0.2	0.1	0.1	194	233
Particulates	.014	2.7	1.1	1.3	562	649

¹Project, Cumulative List, and Downtown Plan emissions calculated using BAAQMD, EMFAC6C vehicular emission factors. Emissions of CO, HC and NOx include an assumed six minutes of idling time per vehicle trip. Emissions of TSP include dust entrained from roadway surfaces.

²Incremental emissions of downtown area development based on list of projected Cumulative Office Development in Downtown San Francisco as of March 10, 1984 (Table C-1, page A-32 of this report).

³Incremental emissions of C-3 District development, per Downtown Plan EIR, Table IV.I.2, page IV.I.12.

⁴Cumulative total emissions of Bay Area development, per ABAG, BAAQMD, MTC, 1982 Bay Area Air Quality Plan.

Source: EIP Corporation

acid rain further downwind, outside the Bay Area, though to a relatively small extent due to the magnitude of the increase and to dilution over time and distance.

"In 2000 (according to the Downtown Plan EIR), area-wide traffic volumes in the downtown area would increase by about 8% and 15%, respectively, over 1984 volumes; average traffic speeds would decrease by about two mph, from 1984 speeds. However, in 2000 the average vehicle is expected to emit 43% less carbon monoxide (CO) than in 1984 due to ongoing state and federal emissions controls.

"CO concentrations at 11 representative intersections in the downtown study area, as analyzed in the Downtown Plan EIR, would decrease from 1984 to 2000. CO concentrations at 10 of the 11 intersections would be within the state and federal standards in 1990 and 2000 under the Downtown Plan. CO concentrations at one intersection (Brannan and Sixth Streets) would continue to violate the state and federal eight-hour standards in 2000 under the Downtown Plan. This suggests that additional intersections not selected for analysis in the Downtown Plan EIR might also violate air quality standards.

"Curbside CO concentrations at selected intersections that would be affected by project-generated traffic and by cumulative development traffic were projected for conservative conditions, and are compared with ambient standards in Table 10, page 118. These projections were calculated using a revised version of the Modified Linear Rollback (MLR) method which was developed for the Downtown Plan EIR.

"The results indicate that violations of the state and federal eight-hour average CO standards currently occur at the three intersections studied under worst-case meteorological conditions. Although maximum eight-hour average values for 1984 do violate the standard of 9 ppm, no exceedences of the applicable CO standards are projected for 1990 at any of the locations analyzed, under any scenario.

"The California Legislature has mandated a biennial inspection and maintenance (I/M) program which applies to most cars and light trucks in California. An annual I/M program

"TABLE 10
PROJECTED WORST-CASE CURBSIDE CARBON MONOXIDE CONCENTRATIONS
AT SELECTED INTERSECTIONS

<u>Intersection</u>	<u>Averaging Time</u>	<u>Concentrations (ppm)¹</u>		<u>Downtown Plan³</u>	
		<u>1984</u>	<u>Cumulative List 1990²</u>	<u>1990</u>	<u>2000</u>
Howard/Second	1-hour	13.7	10.1	10.1	9.3
	8-hour	<u>10.1</u>	8.3	8.5	7.9
Folsom/Second	1-hour	12.5	9.4	9.4	8.7
	8-hour	<u>10.6</u>	7.8	7.9	7.1
First/Folsom	1-hour	14.6	11.6	11.6	10.4
	8-hour	<u>11.1</u>	8.7	8.7	7.8

¹ Calculations for all scenarios were made using a revised version of the Modified Linear Rollback (MLR) method described in the Downtown Plan EIR. Background concentrations were calculated to be 7.4 ppm for one hour and 5.7 ppm for eight hours in 1984, 6.0 ppm for one hour and 4.5 ppm for eight hours in 1990, and 5.7 ppm for one hour and 4.1 ppm for eight hours in 2000. Underlined values are in excess of the state or federal CO standards. The one-hour state standard is 20 ppm, the one-hour federal standard is 35 ppm, and the eight-hour state and federal standards are 9 ppm.

² Based on list of projected Cumulative Office Development in Downtown San Francisco as of March 10, 1984, Appendix C, Table C-1.

³ Based on growth projection methodology contained in Downtown Plan EIR, Table IV.I.3, page Comments and Responses - I.8.

Source: EIP Corporation

was evaluated in the 1982 Bay Area Air Quality Plan based on the 1979 source inventory. Based on predicted reduction in hydrocarbons and CO of 25% in vehicles covered, a reduction in total motor vehicle-generated CO of about 18% would be expected. The reduction in total regional CO emissions would be about 16%. The reduction in motor vehicle-generated hydrocarbons would be about 17%; the reduction in total regional hydrocarbon emissions would be about 6%.

"As CO concentrations in downtown San Francisco are almost entirely due to motor vehicles, future CO levels are predicted to be lower than they would be without an I/M program. Thus, actual concentrations are expected to be lower than CO concentrations shown in Table 9 and CO and HC emissions shown in Table 9, because the cumulative list and the Downtown Plan EIR did not take the I/M Program into account.

"Emissions of total suspended particulates (TSP) resulting from construction and from vehicle trips generated by the project and cumulative development would increase TSP concentrations, which could increase the frequency of TSP standard violations in San Francisco, with concomitant health effects and reduced visibility.²

"Emissions of sulfur oxides (SO_x) generated by the project and by cumulative development would not bring San Francisco's sulfur dioxide (SO₂) concentrations measurably closer to violating the standard.

"The 1982 Bay Area Air Quality Plan contains strategies which consist primarily of HC and CO emission controls on stationary sources and motor vehicles, and transportation improvements, and are aimed at attaining the federal ozone and CO standards. As discussed above, emissions associated with the project and with cumulative downtown development under both the cumulative list and the Downtown Plan are not projected by this EIR or the Downtown Plan EIR to increase ozone concentrations, and thus would not conflict with the objectives of the 1982 Bay Area Air Quality Plan regarding ozone. Cumulative downtown development is projected by the Downtown Plan EIR potentially to result in a violation of the eight-hour CO standard at the Brannan/Sixth intersection analyzed therein. The model used to make the CO projections may not be accurate to within the percentages of the excesses. The Downtown Plan EIR includes a mitigation

measure requesting BAAQMD to install CO "hotspot" monitors downtown in order to validate the model used therein. This winter the City monitored CO and counted traffic at the Sixth and Brannan intersection. Once these data are analyzed, it should be possible to validate and recalibrate, if necessary, the model projections. Until then a determination of whether cumulative downtown development would conflict with objectives of the 1982 Bay Area Air Quality Plan regarding CO cannot be made.

"The pollutant emissions and CO concentrations shown in Tables 9 and 10 were projected for 1990 on the basis of two different sets of future growth assumptions, with differing results. In one case, a list of specific projects proposed, approved, and under construction was used (see Appendix F, pages A-52 through A-53). In the other case the employment growth trend approach of the Downtown Plan EIR was used, and those projections presented. In both cases, the method for air quality analysis was identical. However, the results using projected cumulative development are not directly comparable with those from the Downtown Plan EIR for several reasons.

"First, it is reasonable to assume that the projected cumulative development on the list would be completed and the space it provides absorbed sometime between 1990 and 2000 (probably in the mid-1990s), rather than in either of those two analysis years which were used in the Downtown Plan EIR. The pollutant emissions and CO concentrations were calculated for 1990 using the cumulative list, even though those projects are not expected to be completed and absorbed until the mid-1990s, in order to provide a comparison with the Downtown Plan EIR results. However, this has the effect of artificially increasing the cumulative list results, because average-vehicle emission rates will decline with time, as a result of state and federal controls.

"Second, the transportation analysis used for the Downtown Plan EIR differs from that used for the cumulative list, as described in the Transportation section of this report (pages 88-92). Briefly, these differences include the fact that a cumulative list-based analysis assumes the same proportion of new employees would commute by private auto as is currently the case. In contrast, the Downtown Plan EIR analysis projects a shift of commuters from driving alone to carpool and transit, because commute routes such as the Bay Bridge are already at or near capacity and could not accommodate all of the vehicles that would be used if the proportion of persons driving alone to work remained constant.

"Other reasons for the differences include the use in the cumulative list analysis of a constant regional distribution of trips, whereas the Downtown Plan EIR forecasts a declining percentage of new employees residing in San Francisco, and the lack in the cumulative list approach of discounting factors to account for trips between individual projects within the Downtown. Also the cumulative list applies to the entire downtown area, a larger geographical area than that analyzed in the Downtown Plan EIR, which contains specific forecasts for the C-3 District, but also includes consideration of cumulative impacts of development outside the C-3 District.

"Thus, total (regional) vehicle miles traveled and the resulting pollutant emissions projected using the cumulative list approach are considered artificially high. On a local intersection basis, traffic volumes and the resulting CO concentrations might or might not be higher with the cumulative list approach, depending on the particular location. This is because the cumulative list method does not distribute traffic on all the same streets in the same proportions as does the Downtown Plan EIR method.

"¹ Impacts anticipated from cumulative downtown development have been analyzed in the Downtown Plan Environmental Impact Report (EIR), (EE 81.3, certified October 18, 1984). The air quality setting, impacts and alternatives discussion in the Downtown Plan EIR, (Vol. 1, pp. IV.I.1-19 and VII.I.1-8; Vol. 2, pp. O.1-9; Vol. 3, Part 1, pp. C&R-I, 1-11) is summarized in the text of this EIR and incorporated by reference herein.

"² State particulate standards were adopted in 1983 to concentrate on fine particulate matter which has been demonstrated to have health implications when inhaled. Until the State adopts a method for monitoring fine particulate matter, it is not possible to determine what proportion of TSP in San Francisco would be subject to review against the new standards, whether new standards would be violated, or what the health implications would be."

Page 158: Delete entire section entitled "F. HOUSING", from Chapter V.

Page 167: First paragraph, line 2, delete "amendments to".

The following alternative will be added to page 168 of the EIR:

"F. ALTERNATIVE SIX: SPONSOR-PREFERRED ALTERNATIVE

"1. Description

"This alternative would be similar to the project, but would be somewhat smaller in floor area and not require exceptions to the Planning Code. Specifically, gross floor area (325,365 gsf) would be 1% less than that of the proposed project (329,075 gsf). Total office space of this alternative (265,485 gsf) would also be 1% less than that of the proposed project (267,760 gsf), with a corresponding 1% reduction in net new office space (alternative: 230,485 gsf; proposed project: 232,760 gsf). This alternative would include 4,790 gsf each of retail and restaurant uses, while the proposed project would include 5,580 gsf of restaurant space and 10,000 gsf of retail use. This alternative would also include 4,565 gsf of personal services space (e.g., shoe repair, barber shop), compared to no space devoted to this use in the proposed project. Parking space would remain the same as the project (45,735 gsf).

"Both this alternative and the proposed project would utilize TDRs, with the alternative securing 103,559 gsf of TDR credits from the Central YMCA. The FAR for this alternative would be 9.3:1, compared to 9.4:1 for the project.

"This alternative would have different bulk dimensions than the proposed project, which are shown below. In particular, upper tower average floor area would be reduced below the maximum allowable average of 12,000 gsf, compared to 12,760 gsf with the project.

	<u>Project</u>	<u>Alternative</u>
Bulk (Planning Code Section 270)		
<u>Lower Tower</u>	from 50'-162.5'	from 50'-160'
Maximum Diagonal	196'	190'
Maximum Length	158'	158'
Max. avg. flr. area =	19,250 gsf	16,675 gsf
<u>Upper Tower</u>	from 162.5'-200'	from 160'-200'
Maximum Diagonal	152'	152'
Maximum Length	133'	130'
Max. avg. flr. size =	12,760 gsf	11,475 gsf
Max. flr. size =	15,700 gsf	14,275 gsf

"This alternative would also respond to upper tower volume controls pursuant to Section 270(d)3(B) of the Planning Code by reducing upper tower floor areas to an average of 11,475 gsf, less than the 12,006 gsf permitted for this alternative. The project as originally proposed would not respond to this Code section, and would require Conditional Use authorization.

"Although total parking space would remain the same as the project (45,735 gsf), minor differences would occur in its allocation, as follows:

	<u>Project</u>	<u>Alternative</u>
Parking (Planning Code Sections 102.8(b)16, 157,158, 204.5 (c))	- 23,035 gsf (66 spaces) allowed as accessory use	- 22,776 gsf (65 spaces) allowed as accessory use
	- 22,700 gsf (65 spaces) considered as Conditional Use	- 22,959 gsf (66 spaces) considered as Con- ditional Use

"This alternative would satisfy OAHPP requirements by providing 89 units (67 units from sponsor's Park Hill project; 22 units to be acquired from YMCA), one unit less than the proposed project.

"This alternative would include payment of \$1,152,425 for the Transit Impact Fee (Ordinance 224-81), compared to \$1,163,800 for the project. Further, this alternative would satisfy the Downtown Park Fund requirement (Section 139(d)) by paying \$460,970 to the City compared to \$465,520 for the project. Childcare contributions (Section 315(d)) would total \$230,485, compared to \$232,760 for the project. Provision of artwork would total \$219,200, the same as the project.

"2. Impacts

"This alternative would have 1% less new office space and 52% less retail area, while the restaurant area would be 14% less than that of the proposed project. Additionally, the 4,565 gsf included as personal services use would be a 100% increase in this use area compared to the project. Thus, daily trips would differ slightly as related to office space, and decrease with respect to retail and restaurant space. Due to a slight change in the

composition of uses for this alternative compared to the project, and the 1% reduction in floor area compared to the project, trip generation could be expected to be approximately 0.3% more than the project.

"Visual, shadow, wind, architectural and historical, regional and local air quality, energy consumption, and noise impacts would be about the same as, or slightly less than, the proposed project.

"This alternative would respond to OAHPP guidelines by providing 89 housing units, compared with the 90 units provided with the proposed project. Employment impacts could be expected to remain about the same as the project, netting 949 new permanent jobs for office retail and janitorial functions, and 3,644 net new jobs in the finance, insurance and real estate industries induced by the multiplier effect.

"3. Reasons for Acceptance

"In the sponsor's opinion, this alternative is preferred because it would achieve the objective of maximizing site potential by developing a first-class mixed-use retail and office project. Furthermore, this alternative would satisfy all Planning Code requirements for development in the C-3-O (SD) zoning district except the Conditional Use authorization required for the 66 parking spaces (22,959 gsf) considered in excess of accessory parking guidelines."

The following alternative will be added to page 168 of the EIR, after Alternative Six:

"G. ALTERNATIVE SIX-A: SPONSOR-PREFERRED ALTERNATIVE WITH REVISED PARKING

"1. Description

"This alternative would be similar to Alternative Six, but would be somewhat smaller in floor area and not require exceptions to the Planning Code, due to the reduction of parking space to 22,776 gsf. Specifically, gross floor area (302,406 gsf) would be 7% less

than that of Alternative Six (325,365 gsf). Total office space of this alternative (265,485 gsf) — and corresponding net new office space -- would be the same as Alternative Six. This alternative would include 4,790 gsf each of retail and restaurant uses, as well as 4,565 gsf of personal services space (e.g., shoe repair, barber shop), the same as Alternative Six. Parking space would be about 51% less than Alternative Six (alternative: 22,776 gsf; Alternative Six: 45,735 gsf).

"Both this alternative and Alternative Six would utilize TDRs, with this alternative securing 80,600 gsf of TDR credits from the Central YMCA, compared to 103,559 gsf for Alternative Six. The FAR for this alternative would be 8.6:1, compared to 9.3:1 for Alternative Six. This alternative would have the same bulk dimensions and upper tower volume controls as Alternative Six.

"Total parking space for this alternative would be 22,776 gsf, compared to 45,735 gsf for Alternative Six, as follows:

	<u>Alternative Six</u>	<u>Alternative Six-A</u>
Parking (Planning Code Sections 102.8(b)16, 157,158, 204.5 (c))	- 23,035 gsf (66 spaces) allowed as accessory use	- 22,776 gsf (65 spaces) of short-term, independently accessible space allowed as accessory use
	- 22,700 gsf (65 spaces) considered as Conditional Use	- No excess space that would be considered as a conditional use

"This alternative would satisfy OAHPP requirements by providing 89 units (67 units from sponsor's Park Hill project; 22 units to be acquired from YMCA), the same as Alternative Six.

"This alternative would include payment of \$1,152,425 for the Transit Impact Fee (Ordinance 224-81), would satisfy the Downtown Park Fund requirement (Section 139(d)) by paying \$460,970 to the City, would satisfy childcare contributions (Section 315(d)) by paying \$230,485 to the City and include provision of artwork totalling \$219,200, the same as Alternative Six.

"2. Impacts

"This alternative would have the same new office space, retail area, and restaurant area as Alternative Six. Additionally, the 4,565 gsf included as personal services use would be the same as Alternative Six. This alternative, however, would have 51% less parking space than Alternative Six. Daily trip generation would be reduced slightly for this alternative compared to Alternative Six due to slight decreases with respect to employment associated with the parking use.

"This alternative would generate an excess parking demand of 161 parking spaces, compared to 95 for Alternative Six, for an increase of about 70%. The Project would respond to the Code provision that 7% of the total gross floor area be allowed as an accessory use. The excess demand for parking space generated by this alternative could be accommodated within a four block radius of the project site, which, as noted at page 110 (IV.F. Environmental Impacts: Transportation), has 11,162 parking spaces which are 87% occupied. Further, this deficit of parking spaces would be part of the 6,000 spaces analyzed as part of the Downtown Plan EIR as noted at page 111 (IV.F. Environmental Impacts: Transportation).

"Visual, shadow, wind, architectural and historical, regional and local air quality, energy consumption, and noise impacts would be about the same as, or slightly less than, Alternative Six.

"This alternative would respond to OAHPP guidelines by providing 89 housing units, the same as Alternative Six. Employment impacts could be expected to be slightly less than Alternative Six, netting 944 new permanent jobs for office retail and janitorial functions compared to 949 for Alternative Six, and 3,625 net new jobs in the finance, insurance and real estate industries induced by the multiplier effect, compared to 3,644 for Alternative Six.

"3. Reasons for Acceptance

"In the sponsor's opinion, this alternative is preferred because it would achieve the objective of maximizing site potential by developing a first-class mixed-use retail and office project. Furthermore, this alternative would satisfy all Planning Code requirements for development in the C-3-O (SD) zoning district."

Page 169: Add the following firm to the Project Architects List:

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"On the following pages delete "Interim Controls", and insert "Planning Code":

page 2, second paragraph , line 4;
page 19, third paragraph, line 5;
page 19, third paragraph, line 6
page 20, first paragraph, lines 6-7;
page 20, first paragraph, lines 7-8;
page 24, third paragraph, line 3;

page 24, third paragraph, lines 4-5;
 page 28, second paragraph, lines 1-2;
 page 28, third paragraph, line 2;
 page 28, sixth paragraph, line 2;
 page 29, first paragraph, line 1;
 page 29, first paragraph, last line;
 page 29, second paragraph, line 3
 page 29, third paragraph, line 1;
 page 29, third paragraph, line 12;
 page 29, fourth paragraph, line 1;
 page 30, third paragraph, line 7;
 page 57, first paragraph, lines 9-10;
 page 57, third paragraph, line 5;
 page 58, first paragraph, line 1;
 page 58, first paragraph, last line;
 page 59, table cell "Project" column and "Upper Tower" entry;
 page 61, table cell "Project" column and fourth entry;
 page 62, table cell "Project" column and second entry;
 page 63, first paragraph, line 1;
 page 63, second paragraph, line 2;
 page 63, second paragraph, line 3;
 page 164, first paragraph, line 4;
 page 167, second paragraph, last line.

On the following pages delete "OHPP", and insert "OAHPP":

page 5, second paragraph, line 5;
 page 8, fifth paragraph, line 4;
 page 134, fifth paragraph, last line;
 page 143, footnote 4, second paragraph, line 1;
 page 143, footnote 4, second paragraph, line 5;
 page 144, footnote 10;
 page 158, last paragraph, line 1;
 page 158, last paragraph, line 4;
 page 158, last paragraph, line 5;
 page 158, last paragraph, line 7;
 page 164, fifth paragraph, line 1;
 page 164, fifth paragraph, line 3;
 page 166, first paragraph, line 1;
 page 167, fourth paragraph, line 1;
 page A-49, footnote 1;
 page A-51, footnote 1, line 1.

On the following pages insert "Affordable" between "Office" and "Housing"

page 5, second paragraph, line 4;
 page 134, fifth paragraph, last line;
 page 158, last paragraph, line 1;
 page A-49, footnote 1;

page A-51, footnote 1, line 1.

On the following pages delete "Interim Controls to implement the Downtown Plan", and insert "Planning Code":

page 8, third paragraph, line 1;
 page 28, first paragraph, lines 1 and 2;
 page 59, title of middle column of Table 2;
 page 60, title of middle column of Table 2;
 page 61, title of middle column of Table 2;
 page 62, title of middle column of Table 2;
 page 81, fifth paragraph, line 1.

On the following pages delete "Downtown Plan Interim Controls", and insert "Planning Code":

page iv, title of second table;
 page 1, second paragraph, line 16;
 page 59, table cell "Project" column and "Height" entry;
 page 60, table cell "Project" column and second entry;
 page 60, table cell "Project" column and third entry;
 page 60, table cell "Project" column and last entry;
 page 61, table cell "Project" column and third entry;

On the following pages delete "Permanent Controls", and insert "Planning Code":

page 24, second paragraph, line 8;
 page 59, table cell of "Project" column and "Base FAR" entry.

On the following pages delete "Downtown Plan Interim Controls", and insert "the Planning Code":

page 58, fifth paragraph, lines 2-3;
 page 59, title of Table 2;
 page 60, title of Table 2;
 page 61, title of Table 2;
 page 62, title of Table 2.

On the following pages delete "Planning Commission No. 10166, adopted November 29, 1984, imposing Downtown Plan Interim Controls;", and insert "Downtown Plan Ordinance, No. 414-85, effective October 17, 1985,"; also add to the end of the footnote: "Ordinance provisions have been incorporated into the City Planning Code":

page 20, footnote 3;
 page 33, footnote 1;
 page 115, footnote 19, (delete text and replace with final format indicated above).

On the following pages, delete "102.8(b)13", and insert "102.8(b)12":

page 28, second paragraph, line 1;
 page 58, first paragraph, line 1.

On the following pages, delete "1.5", and insert "1.0":

page 29, first paragraph, line 2;
page 61, second column, third entry, line 1.

The following will replace Appendix G of the EIR:

**"APPENDIX G
MICROCLIMATE IMPACT STUDY
299 SECOND STREET PROJECT**

"I. INTRODUCTION

"The 299 Second Street project was previously evaluated for wind impacts. Since this analysis was prepared, Section 148 of the Planning Code has been adopted, with its own wind analysis methodology and criteria. This report describes a re-analysis of the wind impacts of the proposed project using the methodology and criteria of the Section 148 of the Planning Code.

"This report summarizes the results of wind tunnel tests performed on a scale model of the project and its surroundings to predict wind levels near the project site. Tests were conducted for the existing site and for the site with the proposed development, including approved construction and building currently under construction.

"II. SUMMARY

"Wind tunnel tests were conducted for wind on the project site in its current condition (and approved projects in the vicinity) and with the proposed project in relation to the Section 148 wind performance criteria (adopted by the City Planning Commission on November 29, 1984).

"Wind tunnel measurements were used to predict equivalent mean wind speed near the proposed project site. These mean wind speeds were compared to comfort criteria, based on the onset of uncomfortable physical effects of the wind, of 11 mph for pedestrian areas

and 7 mph for sitting areas. Section 148 also includes a pedestrian hazard criterion of 26 mph.

"The wind tunnel test of the project area indicates that existing winds do not exceed the 11 mph pedestrian comfort criterion established in Section 148 of the Planning Code. The project would cause wind speeds to increase at 1 of the 23 sidewalk locations monitored (by one mph), to decrease at ten locations (by between 1 and two mph), and to remain the same at 12 locations. Within the outdoor eating and sitting areas along Second Street and Folsom Street winds would range from 5 to 6 mph, below the 7 mph criterion of the Downtown Plan. Neither existing winds or winds with the proposed project would exceed the pedestrian hazard criterion.

"III. METHODOLOGY

"Tests were performed on a 1 inch = 30 feet scale model of the project site and surrounding several blocks. All proposed, approved and under-construction buildings within the area modeled were included. Tests were conducted in Environmental Impact Planning Associates' boundary layer wind tunnel in San Francisco. The tunnel has a cross-section seven-feet wide by five-feet high, and has a total length of 60 feet. Speeds within the tunnel can be varied from approximately 3 to 12 mph.

"Visualization of the flow was performed by releasing flood-lit smoke near the model. Wind speeds were measured at 26 locations near and within the project site. Measurements were made with a hot-film probe and a constant temperature anemometer, an instrument that electronically relates heat loss from the probe to wind speed. Mean windspeeds and the turbulence intensity measured over the model were related statistically to real-world winds by comparing measured winds to the free-stream wind above the model.

"Winds were tested for four wind directions: northwest, west-northwest, west and west-southwest. The wind direction was varied by rotating the model within the wind tunnel to simulate the desired wind direction.

"IV. CRITERIA

"Wind conditions partly determine pedestrian comfort on sidewalks and in other public areas. In downtown areas, high-rise buildings can redirect wind flows around buildings and divert winds downward to street level; each can result increased wind speed and turbulence at street level.

"The comfort of pedestrians varies under different conditions of sun exposure, temperature, clothing, and wind speed. Winds up to four mph have no noticeable effect on pedestrian comfort. With winds from four to eight mph, wind is felt on the face. Winds from 8 to 13 mph will disturb hair, cause clothing to flap, and extend a light flag mounted on a pole. For winds from 19 to 26 mph, the force of the wind will be felt on the body. At 26 mph to 34 mph wind, umbrellas are used with difficulty, hair is blown straight, there is difficulty in walking steadily, and wind noise is unpleasant. Winds over 34 mph increase difficulty with balance and gusts can blow people over.¹

"In order to provide a comfortable wind environment for people in the Downtown, Section 148 of the Planning Code establishes an equivalent (includes the effects of turbulence) windspeed (as defined in the code) of seven and 11 mph as comfort criteria and 26 mph as a wind hazard criterion. Section 148 sets comfort levels of seven mph equivalent wind speed for public seating areas and 11 mph equivalent wind speed for areas of substantial pedestrian use. New buildings and additions to buildings may not cause ground level winds that would exceed these levels more than 10% of the time between 7:00 a.m. and 6:00 p.m. year round.² If existing wind conditions exceed the comfort level, new buildings and additions shall be designed to reduce ambient wind speeds to meet the requirements.

"V. ANALYSIS

"The mean wind speeds at street level were determined by a wind tunnel test, and a comparison of the test results with statistically representative records of wind data collected atop the Old Federal Building. Data describing the speed, direction and frequency of occurrence of winds were gathered at the Old Federal Building, at 50 United

Nations Plaza, during the six-year period 1945 to 1950. Hourly measurements have been tabulated for each month (averaged over the six years) in three-hour periods using seven classes of wind speed and 16 compass directions. Analysis of these data shows that during the hours from 6:00 a.m. to 8:00 p.m., about 62% of the winds blow from three of the 16 directions, as follows: northwest (NW), 10%; west-northwest (WNW), 14%; west (W), 35%; west-southwest (WSW), 2%; calm conditions occur 2% of the time.

"Each wind tunnel test measurement results in a ratio that relates the speed of ground-level wind to the speed at the reference elevation, in this case the height of the old San Francisco Federal Building. The wind that is measured is an equivalent wind speed value which is adjusted to include the level of gustiness or turbulence present.

"The frequency with which a particular wind velocity is exceeded at any test location is then calculated by using the measured wind tunnel ratios and a specified ground speed to determine the corresponding reference wind speed for each direction. In general, this gives different reference speeds for each direction (NW, WNW, W, WSW, and Other). The wind data for San Francisco are then used to calculate the percentage of the time each reference speed would be exceeded. The sum of these is the total percentage of the time that the specified ground-level wind speed would be exceeded. A computer is used to calculate the total percentages for a series of wind speeds until the speed corresponding to the speed exceed 10% of the time is found. Throughout the following discussion, the wind speeds reported refer to the equivalent wind speeds that would be exceeded 10% of the time.

"The results of the wind tunnel analysis are presented in tabular form in Figure G-1. The values presented are the estimated wind speeds that would be exceeded 10% of the time between the hours of 7:00 a.m. and 6:00 p.m. on an annual basis. The 10% exceeded wind speeds range from 5 to 8 mph for the existing site. For the proposed project, wind speeds would range from 4 to 8 mph. The 11 mph wind criterion is not currently exceeded near the project site, nor would the 26 mph hazard criterion be exceeded. The project would generally reduce winds along street areas adjacent the site. Winds would increase at one, measurement location, decrease at 10 and remain unchanged at 12 of the 23 sidewalk measurement locations. The hazard criterion would not be exceeded anywhere near the

site. Measurements were also made within the eating and sitting areas within the site along the Second Street and Folsom Street frontages of the site. Winds within these covered and partially enclosed spaces would range from 5 to 6 mph equivalent mean wind speed, below the 7 mph criterion of the Planning Code.

"The windspeed ratios, as derived from wind tunnel measurements, are shown in Table G-1.

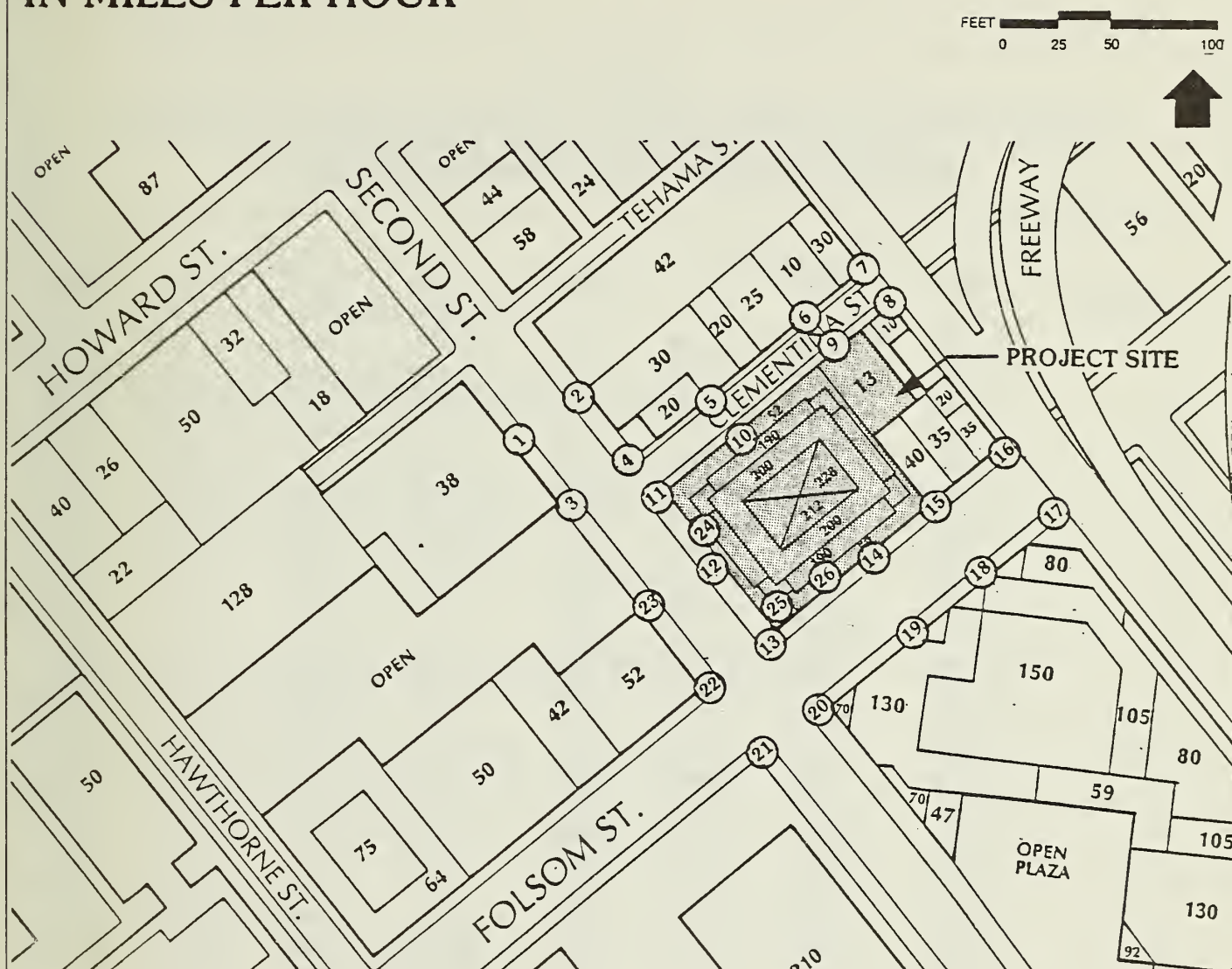
"¹ Lawson, T.V., and A.D. Penwarden 1976, "The Effects of Wind on People in the Vicinity of Buildings", Proceedings of the Fourth International Conference on wind Effects on Buildings and Structures, London, 1975, Cambridge University Press, Cambridge, U.K., 605-622.

"² Section 148 of the Planning Code specifies the hours of 7:00 a.m. to 6:00 p.m. The available weather data that cover that interval cover the hours of 6:00 a.m. to 8:00 p.m. Thus, observations from two additional evening hours and one additional morning hour are included in these data. Because, in general, winds are stronger in the afternoon and evening than in the morning, this approximation is conservative; it is likely to overestimate the existing and projected wind speeds."

EQUIVALENT MEAN WIND SPEED EXCEEDED 10% OF THE TIME ANNUALLY, IN MILES PER HOUR

FIGURE G-1

SOURCE: EIP ASSOCIATES



Loc.	Existing & Approved	Existing, Approved & Project	Loc.	Existing & Approved	Existing, Approved & Project
1	6	6	14	7	6
2	7	7	15	5	5
3	6	6	16	5	5
4	8	7	17	5	5
5	7	5	18	6	5
6	6	4	19	5	6
7	5	4	20	7	7
8	5	5	21	7	7
9	8	7	22	7	7
10	7	4	23	5	5
11	7	6	24	-	5
12	8	8	25	-	6
13	8	7	26	-	5

Source: EIP Associates

Section 148 of the Planning Code establishes wind criterion of 11 mph for pedestrian areas, and 7 mph for sitting areas. In the above table, locations exceeding the appropriate criterion are underlined.

Section 148 also establishes a hazard criterion of 26 mph for 1 hour annually. Locations exceeding this criterion are followed by an asterisk.

"TABLE G-1
WIND SPEED RATIOS (WITH RESPECT TO THE OLD FEDERAL BUILDING)
AS DERIVED FROM WIND TUNNEL MEASUREMENTS
(MEASUREMENT LOCATIONS SHOWN IN FIGURE G-1)

<u>Location</u>	<u>Existing</u>				<u>Project</u>			
	<u>NW</u>	<u>WNW</u>	<u>W</u>	<u>WSW</u>	<u>NW</u>	<u>WNW</u>	<u>W</u>	<u>WSW</u>
1	0.384	0.358	0.188	0.112	0.384	0.368	0.168	0.108
2	0.396	0.358	0.278	0.176	0.388	0.358	0.284	0.176
3	0.358	0.298	0.232	0.396	0.358	0.298	0.116	0.414
4	0.320	0.308	0.396	0.320	0.362	0.312	0.362	0.298
5	0.030	0.180	0.396	0.470	0.188	0.172	0.264	0.434
6	0.210	0.222	0.358	0.362	0.206	0.204	0.174	0.358
7	0.270	0.226	0.184	0.338	0.158	0.226	0.184	0.346
8	0.232	0.264	0.264	0.358	0.232	0.260	0.264	0.358
9	0.236	0.320	0.414	0.422	0.188	0.282	0.346	0.372
10	0.244	0.298	0.362	0.508	0.146	0.232	0.172	0.396
11	0.354	0.184	0.376	0.432	0.312	0.320	0.226	0.338
12	0.432	0.346	0.432	0.264	0.388	0.298	0.418	0.358
13	0.358	0.320	0.432	0.376	0.312	0.282	0.198	0.302
14	0.202	0.244	0.346	0.432	0.274	0.232	0.308	0.362
15	0.198	0.188	0.244	0.320	0.252	0.206	0.264	0.358
16	0.298	0.132	0.226	0.338	0.298	0.132	0.226	0.338
17	0.316	0.146	0.226	0.380	0.312	0.146	0.264	0.380
18	0.200	0.282	0.264	0.350	0.324	0.270	0.222	0.350
19	0.206	0.274	0.264	0.338	0.282	0.262	0.264	0.320
20	0.312	0.350	0.324	0.320	0.312	0.350	0.320	0.338
21	0.358	0.328	0.312	0.282	0.358	0.320	0.312	0.282
22	0.312	0.298	0.338	0.226	0.324	0.282	0.358	0.226
23	0.376	0.282	0.150	0.300	0.358	0.260	0.150	0.300
24	-	-	-	-	0.340	0.250	0.122	0.179
25	-	-	-	-	0.270	0.250	0.247	0.290
26	-	-	-	-	0.320	0.275	0.200	0.275"

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Marie Zeller
Whisler-Patri
590 Folsom Street
San Francisco, CA 94105

South of Market Association
E.O.C. Office
1173 Mission St.
San Francisco, CA 94103

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KSW Properties
244 California Street
San Francisco, CA 94111

Walter Gruenwald
c/o Gruenwald Realty
3410 Geary Blvd.
San Francisco, CA 94118

Solzer/Hail 1982 Family Trust
c/o William & Joy Hail
11 Beaconsfield Court
Orinda, CA 94563

Marathon Development
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San Francisco, Ca 94105

Jack L. Grillo, Inc.
501 Army St., #100C
San Francisco, CA 94124

Fritzi Realty
199 First Street
San Francisco, CA 94105

Marcell & John Bier
116 Cherry Street
San Francisco, CA 94118

United California Bank
Realty Corp.
600 South Spring St , #16
Los Angeles, CA 90014

E. Harbold Enterprises Inc.
Evelyn D. Harbold
2207 Cipriani Blvd
Belmont, CA 94002

● XI. CERTIFICATION MOTION

File No.: 83.311E
299 Second Street
Assessor's Block 3736,
Lots 27, 29 and 35

SAN FRANCISCO
CITY PLANNING COMMISSION
MOTION NO. 10668

ADOPTING FINDINGS RELATED TO THE CERTIFICATION OF A FINAL ENVIRONMENTAL IMPACT REPORT FOR A PROPOSED OFFICE/RETAIL MIXED USE DEVELOPMENT, LOCATED ON THE NORTHEAST CORNER OF SECOND AND FOLSOM STREETS (299 SECOND STREET).

MOVED, That the San Francisco City Planning Commission (hereinafter "Commission") hereby CERTIFIES the Final Environmental Impact Report identified as case file No. 83.311E, 299 Second Street (hereinafter "Project") based upon the following findings:

1) The City and County of San Francisco, acting through the Department of City Planning (hereinafter "Department") fulfilled all procedural requirements of the California Environmental Quality Act (Cal. Pub. Res. Code Section 21000 et seq., hereinafter "CEQA"), the State CEQA Guidelines (Cal. Admin. Code Title 14, Section 15000 et seq., "hereinafter CEQA Guidelines") and Chapter 31 of the San Francisco Administrative Code (hereinafter "Chapter 31").

a. The Department determined that an EIR was required and provided public notice of that determination by publication in a newspaper of general circulation on February 10, 1984.

b. On February 8, 1985, the Department published the Draft Environmental Impact Report (hereinafter "DEIR") and provided public notice in a newspaper of general circulation of the availability of the DEIR for public review and comment and of the date and time of the City Planning Commission public hearing on the DEIR; this notice was mailed to the Department's list of persons requesting such notice.

c. Notices of availability of the DEIR and of the date and time of the public hearing were posted near the project site by Department staff on February 8, 1985.

d. On February 8, 1985, copies of the DEIR were mailed or otherwise delivered to a list of persons requesting it, to those noted on the distribution list in the DEIR, to adjacent property owners, and to government agencies, the latter both directly and through the State Clearinghouse.

e. Notice of Completion was filed with the State Secretary of Resources via the State Clearinghouse on February 8, 1985.

2) The Commission held a duly advertised public hearing on said Draft Environmental Impact Report on March 21, 1985, at which opportunity for public comment was given, and public comment was received on the DEIR. The period for written comments ended April 1, 1985.

3) The Department prepared responses to comments on environmental issues received at the public hearing and in writing during the 53-day public review period for the DEIR, prepared revisions to the text of the DEIR in response to comments received or based on additional information that became available

during the public review period, and corrected errors in the DEIR. This material was presented in a "Draft Summary of Comments and Responses," published on April 3, 1986, was distributed to the Commission and to all parties who commented on the DEIR, and was available to others upon request at Department offices. An addendum to the Draft Summary of Comment was published on April 8, 1986, was also distributed to the Commission and to all parties who commented on the DEIR, and was available to others upon request at Department offices.

4) A Final Environmental Impact Report has been prepared by the Department, consisting of the Draft Environmental Impact Report, and consultations and comments received during the review process, any additional information that became available, and the Summary of Comments and Responses and its Addendum, all as required by law.

5) Project Environmental Impact Report files have been made available for review by the Commission and the public, and these files are part of the record before the Commission.

6) On April 17, 1986, the Commission reviewed and considered the Final Environmental Impact Report of 299 Second Street and found that the contents of said report and the procedures through which the Final Environmental Impact Report was prepared, publicized and reviewed comply with the provisions of CEQA, the CEQA Guidelines and Chapter 31.

7) The project sponsor has indicated that the presently preferred alternative is Alternative Six-A: Sponsor-Preferred Alternative described in the Final Environmental Impact Report as modified by the Addendum.

8) The Commission hereby does find that the Final Environmental Impact Report concerning File No. 83.311E: 299 Second Street is adequate, accurate and objective, and that the Summary of Comments and Responses contains no significant revisions to the Draft Environmental Impact Report, and hereby does CERTIFY THE COMPLETION of said Final Environmental Impact Report in compliance with CEQA and the CEQA Guidelines.

9) The Commission, in certifying the completion of said Final Environmental Impact Report, hereby does find that the project described in the Environmental Impact Report and the proposed project to be presented to the Commission for consideration and approval, described as Alternative Six-A in the Environmental Impact Report:

a. Will have no project-specific significant effects on the environment;

b. Will have a significant effect on the environment in that it would contribute to cumulative downtown traffic increases and cumulative passenger loadings on Muni, BART, and other transit carriers. Such cumulative transportation impacts could cause violations to total suspended particulate (TSP) and localized carbon monoxide (CO) standards in San Francisco with concomitant health effects and reduced visibility.

CITY PLANNING COMMISSION

File No. 83.311E
299 Second Street
Assessor's Block 3736,
Lots 27, 29 and 35
Motion No. 10668
Page Three

I hereby certify that the foregoing Motion was ADOPTED by the City Planning Commission at its regular meeting of April 17, 1986.

Acting Secretary
Barbara Renteria

AYES: Commissioners Allen, Hemphill, Karasick, Nakashima, Rosenblatt and Wright

NOES: Commissioner Bierman

ABSENT: None

ADOPTED: April 17, 1986



DEPARTMENT OF CITY PLANNING 450 McAllister St. - 5th Floor

(415)558-5260

NOTICE THAT AN
ENVIRONMENTAL IMPACT REPORT
IS DETERMINED TO BE REQUIRED

Date of this Notice:

February 10, 1984

Lead Agency: City and County of San Francisco, Department of City Planning
450 McAllister St. - 5th Floor, San Francisco CA 94102

Agency Contact Person: Jim McCormick

Tel: (415) 558-5260

Project Title: 299 Second Street
83.311E

Project Sponsor: Prometheus Development Co.

Project Contact Person: Stephen Koch

Project Address: 299 Second Street

Assessor's Block(s) and Lot(s): 3736/27,29,35

City and County: San Francisco

Project Description: Construct an 11-story building containing approximately 206,000 gross square feet of offices over 10,000 gsf of ground floor retail space and two levels of below-grade parking for 118 automobiles; after demolition of one two-story and one three-story commercial building and replacement of surface parking for about 82 automobiles.

THIS PROJECT MAY HAVE A SIGNIFICANT EFFECT ON THE ENVIRONMENT AND AN ENVIRONMENTAL IMPACT REPORT IS REQUIRED. This determination is based upon the criteria of the Guidelines of the State Secretary for Resources, Sections 15081 (Determining Significant Effect), 15082 (Mandatory Findings of Significance) and 15084 (Decision to Prepare an EIR), and the following reasons, as documented in the Initial Evaluation (initial study) for the project, which is on file at the Department of City Planning:

Deadline for Filing of an Appeal of this Determination to the City Planning Commission: February 21, 1984.

An appeal requires 1) a letter specifying the grounds for the appeal, and 2) a \$35.00 filing fee.

Alec S. Bash, Environmental Review Officer

APPENDIX A

FINAL INITIAL STUDY

299 SECOND STREET

NO. 83.311E

February 10, 1984

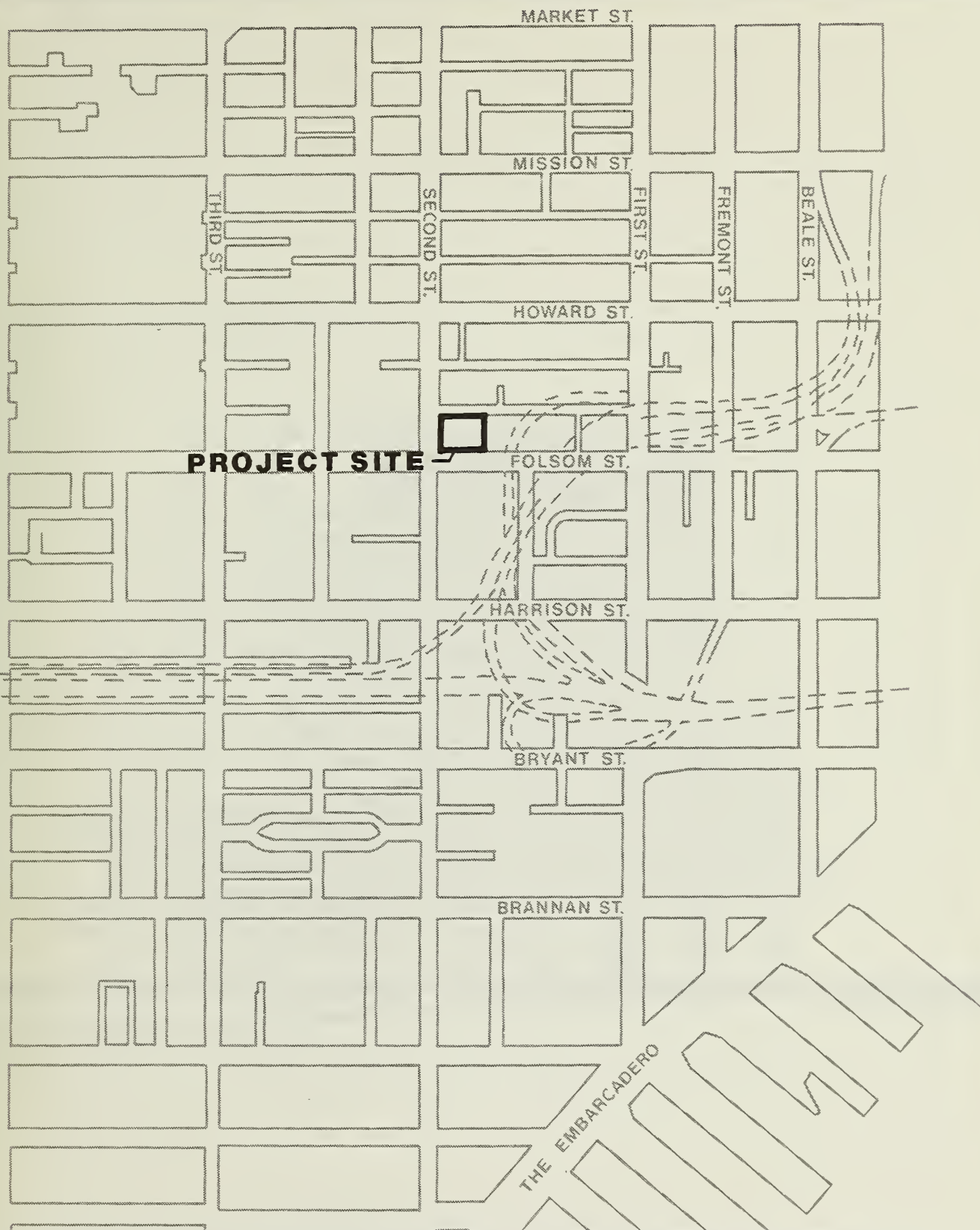
I. PROJECT DESCRIPTION

The proposed 299 Second Street project would be a mixed-use development containing office space, ground-level retail space and parking. The project site is on Assessor's Block 3736, Lots 27, 29 and 35 and contains approximately 30,860 square feet. The site is in the South of Market area on the northeast corner of Second and Folsom Streets and south of Clementina Street (Figure 1, page 2). It is in the C-3-S (Downtown Support) district and a 320-I height and bulk district. Permitted Floor Area Ratio (FAR) is 7:1.

Lots 29 and 27 contain a three-story concrete office building and a two-story wood-frame building containing offices above a ground-floor restaurant. Office uses in the two buildings total 35,000 gross square feet. There are also 52 marked parking spaces on Lot 29, and 30 spaces located partially on Lot 35 and partially on the northeastern portion of Lot 27 abutting Lot 35. Both lots are accessed from Clementina Street. The three-story concrete building (580-590 Folsom), formerly the Bothin Realty Building, and the two-story building at 596 Folsom Street, have been rated "C" by the expanded architectural survey by Heritage.¹ Both of these buildings would be demolished.

The project sponsor, Prometheus Development Company, proposes to construct an 11-story office building with ground-level retail space and parking. The new structure including office, retail and a mechanical penthouse would contain approximately 216,000 gross square feet (gsf). Of this area about 10,000 gsf would be used for retail and 206,000 gsf would be used for office space. There would be two levels of parking for 118 automobiles totaling about 45,000 square feet of floor area (Figures 2, 3 and 4, pages 3, 4 and 5). TDRs (Transferable Development Rights) as suggested in the Downtown Plan for this area would be included as part of the project if they are adopted by the City. TDRs could increase permitted densities for this site. An alternative including TDRs will be analyzed in the EIR.

The proposed project would provide 2 loading spaces on Clementina Street. Pedestrian access to the building would be from Clementina Street and from a diagonal corner entrance at Folsom and Second Streets.



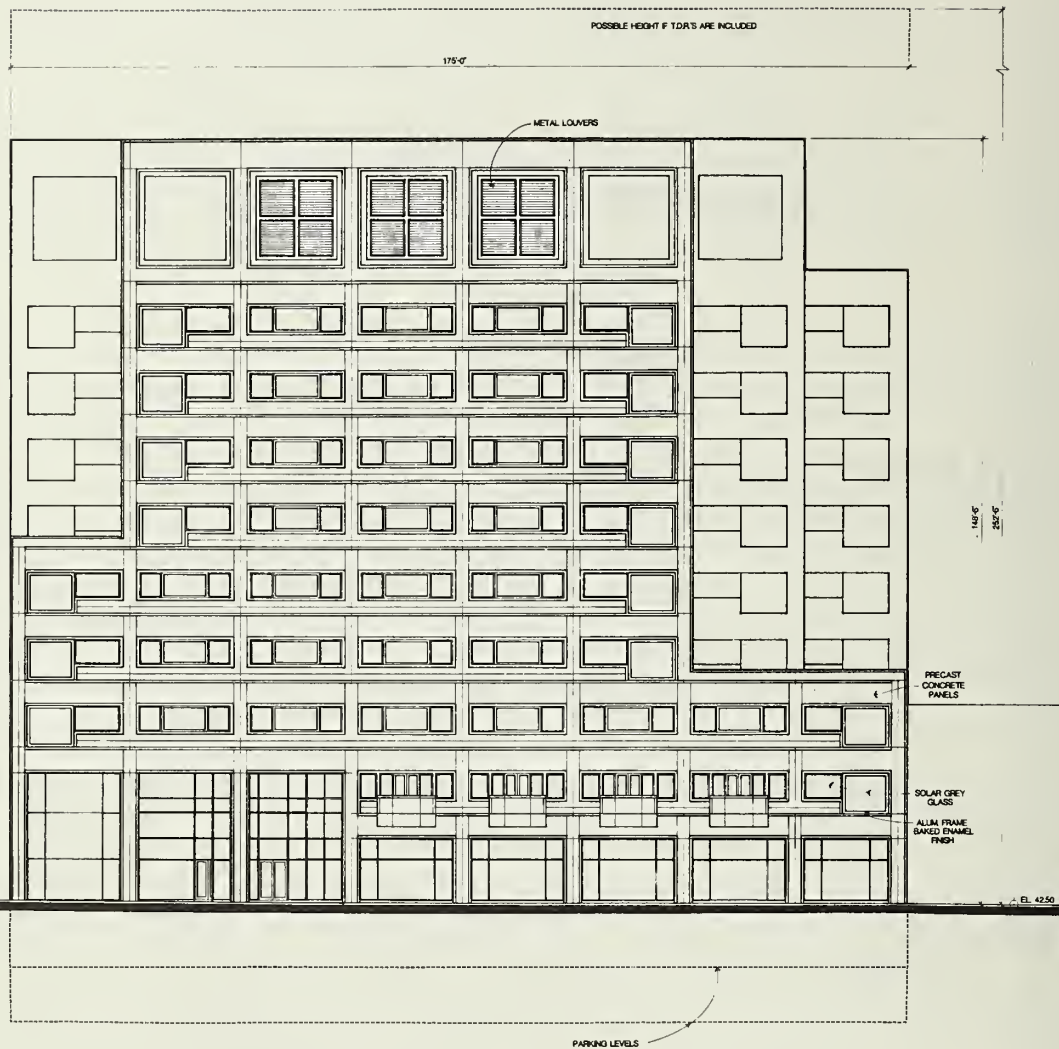
SCALE 0 500 1000 2000 FEET



SOURCE: EIP CORPORATION

SITE LOCATION

1

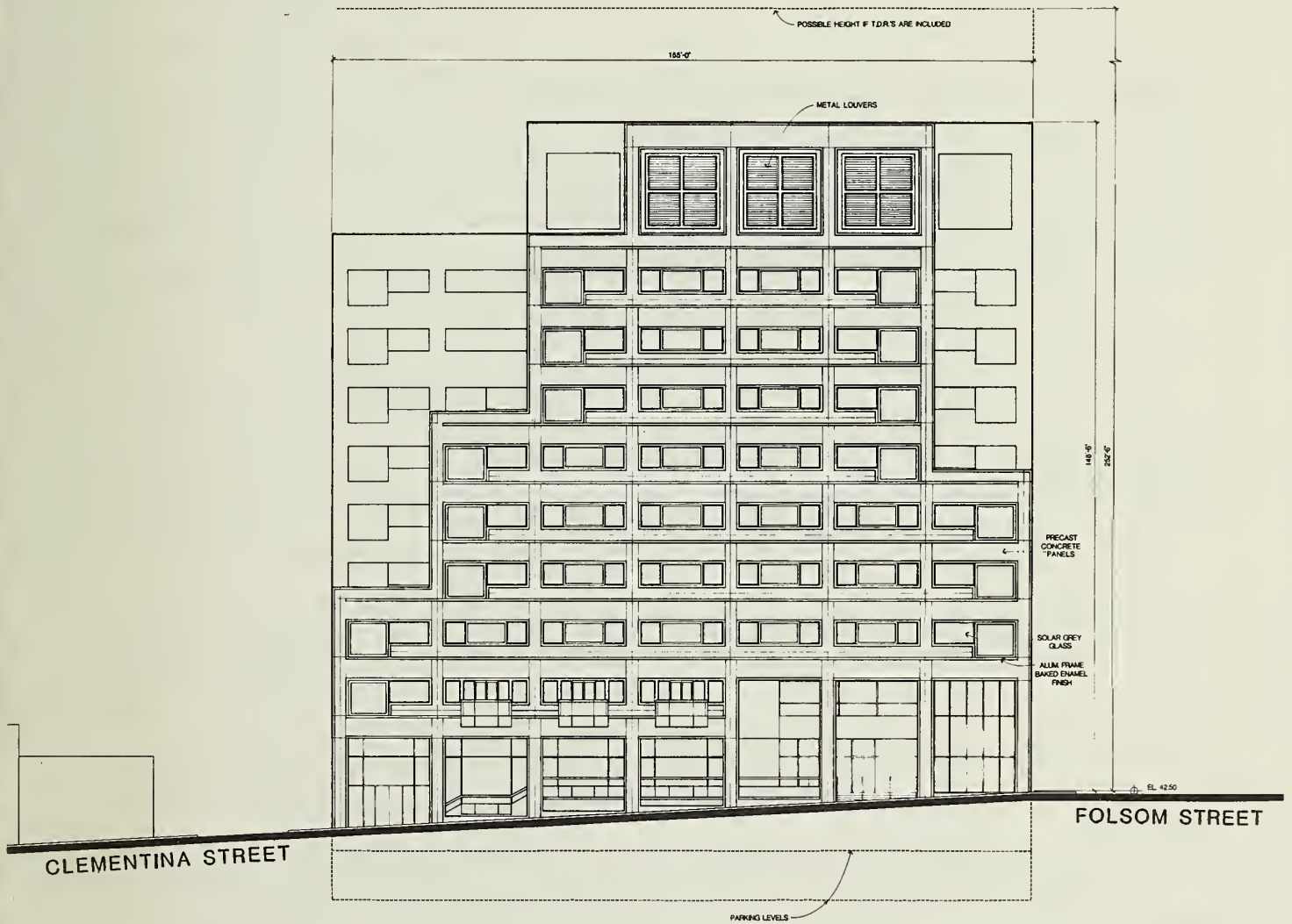


SCALE 0 10 20 40 FEET

SOURCE: WHISLER-PATRI

SOUTH ELEVATION

2



SCALE 0 10 20 40 FEET

SOURCE: WHISLER -PATRI

WEST ELEVATION

3

The project architect is Whisler-Patri of San Francisco.

¹ Foundation for San Francisco's Architectural Heritage, San Francisco Downtown Architectural Survey: C-3 Zoning District Final Evaluated List, December 1, 1982 (an update of Splendid Survivors). Heritage is a non-profit volunteer historic preservation organization that has identified and documented significant San Francisco buildings.

II. SUMMARY OF POTENTIAL EFFECTS

A. SIGNIFICANT EFFECTS

The 299 Second Street project is examined in this Initial Study to identify its potential effects on the environment. Some of the impacts which would be generated by the proposed project could be potentially significant. Potential impacts which require further analysis in an EIR include land use; urban design; housing demand; transportation and circulation; construction noise; shadow and wind patterns; cumulative air quality effects; energy demand; architectural resources; and cumulative fire protection services.

B. INSIGNIFICANT EFFECTS

Some environmental effects would either be insignificant or would be mitigated through measures incorporated into the project design. These require no environmental analysis and will not be addressed in the EIR.

Operational Noise: After completion, the project would not perceptibly increase noise in the project vicinity.

Odors/Burning of Materials and Project-Related Air Quality/Climate: Construction and operation of the proposed project would not create objectionable odors, nor would the project involve burning any materials. Project operation would not violate any ambient air quality standard, expose any sensitive receptors to air pollutants or create any objectionable odors. The issues of cumulative air quality impacts and wind and shadows will be discussed in the EIR.

Biology: The project would have no effect on plant or animal life because the site is currently covered by buildings.

Geology/Topography: Dewatering may be required. The project sponsor has included mitigation measures addressing this activity. A geotechnical report will be prepared by a California licensed soils engineer. Building construction will conform to the recommendations in that report.

Water: The site is currently covered by buildings and has no surface water. Alterations to drainage patterns, therefore, will not be discussed in the EIR.

Utilities/Public Services: Increased demand for public services and utilities attributable to the proposed project would not require additional personnel or equipment.

Hazards: The proposed project would not be affected by hazardous uses nor would it cause health hazards. An evacuation and emergency response plan would be developed by the project sponsor as part of the project.

Cultural: Project excavation would occur in previously disturbed soils. Because the project site is beyond the old San Francisco shoreline, the potential for encountering cultural resources during construction would be limited. The project sponsor has included a mitigation measure addressing this improbable impact.

III. ENVIRONMENTAL SETTING

A. COMPATIBILITY WITH EXISTING ZONING AND PLANS

Could the project:

	<u>Yes</u>	<u>No</u>	<u>Discussed</u>
1. Require a variance, special authorization, or change to the City Planning Code or Zoning Map?	<u>X</u>	<u> </u>	<u>X</u>
*2. Conflict with the Comprehensive Plan of the City and County of San Francisco?	<u> </u>	<u>X</u>	<u>X</u>
*3. Conflict with any other adopted environmental plans and goals of the City or Region?	<u> </u>	<u>X</u>	<u> </u>

The project would be subject to Discretionary Review by the City Planning Commission. The compatibility of the proposed project with specific goals in the Comprehensive Plan will be discussed in the EIR.

B. ENVIRONMENTAL EFFECTS

	<u>Yes</u>	<u>No</u>	<u>Discussed</u>
1. <u>Land Use</u> . Could the project:			
*a. Disrupt or divide the physical arrangement of an established community?	___	<u>X</u>	<u>X</u>
b. Have any substantial impact upon the existing character of the vicinity?	___	<u>X</u>	<u>X</u>

The project site is located in the C-3-S (Downtown Support) district and a 320-I height and bulk district. The project area, on the periphery of the downtown business district in the South of Market area, contains high-rise buildings, wholesale/storage and commercial home and business services. The project would not vacate any streets, alleys, or other access ways between portions of the downtown.

The proposed mixed-use office and retail project, along with other proposed projects in the immediate area, could contribute to an increase in the scale, density and alteration in the type of land uses. This matter will be further discussed in the EIR.

	<u>Yes</u>	<u>No</u>	<u>Discussed</u>
2. <u>Visual Quality</u> . Could the project:			
*a. Have a substantial, demonstrable negative aesthetic effect?	___	<u>X</u>	<u>X</u>
b. Substantially degrade or obstruct any scenic view or vista now observed from public areas?	___	<u>X</u>	<u>X</u>
c. Generate obtrusive light or glare substantially impacting other properties?	___	<u>X</u>	___

The EIR will discuss potential visual impacts of the project. A building the size of the proposed project would be smaller than those constructed recently in the C-3-S area but larger than most older warehouse and office

* Derived from State Environmental Guidelines, Appendix G, normally significant impacts.

buildings. Its relationship to the Urban Design Element of the Comprehensive Plan and the scale of surrounding buildings would be discussed in the EIR.

	<u>Yes</u>	<u>No</u>	<u>Discussed</u>
3. <u>Population.</u> Could the project:			
*a. Induce substantial growth or concentration of population?	<u> </u>	<u> X </u>	<u> X </u>
*b. Displace a large number of people (involving either housing or employment)?	<u> </u>	<u> X </u>	<u> X </u>
c. Create a substantial demand for additional housing in San Francisco, or substantially reduce the housing supply?	<u> </u>	<u> X </u>	<u> X </u>

596 Folsom is a two-story office building with a ground-level restaurant. To the east, at 580-590 Folsom, there is a three-story office building. As these two buildings would be demolished to accommodate the proposed project, these businesses and residents would be displaced. Employment, growth inducement and housing demand will be analyzed in the EIR.

	<u>Yes</u>	<u>No</u>	<u>Discussed</u>
4. <u>Transportation/Circulation.</u> Could the project:			
*a. Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system?	<u> X </u>	<u> </u>	<u> X </u>
b. Interfere with existing transportation systems, causing substantial alterations to circulation patterns or major traffic hazards?	<u> </u>	<u> X </u>	<u> X </u>
c. Cause a substantial increase in transit demand which cannot be accommodated by existing or proposed transit capacity?	<u> X </u>	<u> </u>	<u> X </u>
d. Cause a substantial increase in parking demand which cannot be accommodated by existing parking facilities?	<u> X </u>	<u> </u>	<u> X </u>

A project of this size could also add incrementally to the cumulative demand for transit, parking and existing transportation systems. All of the above matters will be discussed in the EIR.

	<u>Yes</u>	<u>No</u>	<u>Discussed</u>
5. <u>Noise</u> . Could the project:			
*a. Increase substantially the ambient noise levels for adjoining areas?	—	<u>X</u>	<u>X</u>
b. Violate Title 25 Noise Insulation Standards, if applicable?	—	<u>X</u>	—
c. Be substantially impacted by existing noise levels?	—	<u>X</u>	<u>X</u>

The project would contain a parking facility and loading spaces at the rear of the site off Clementina Street. However, there would be no noticeable increase in noise levels associated with project-related traffic as the noise environment of the area is dominated by traffic noise from the Embarcadero Freeway. The downtown San Francisco noise environment is dominated by vehicular traffic noise. The Environmental Protection Element of the San Francisco Comprehensive Plan indicated an existing day-night average noise level (Ldn) of 75 dBA on Folsom Street in 1974; additionally, the project is approximately 250 feet west of ramps to the Embarcadero Freeway which are identified in the Element as having noise levels in excess of 80 dBA. The Environmental Protection Element contains guidelines for determining the compatibility of land uses with various noise environments. For office uses, the guidelines recommend no special noise control measures in an exterior noise environment up to an Ldn of 70 dBA. For 75 dBA and greater noise levels, the guidelines recommend an analysis of noise reduction requirements and inclusion of noise insulation features in the building design. The project sponsor has indicated that noise insulation measures would be included as part of the design (see page 19).

Noise would not perceptibly exceed existing levels after building completion. Traffic generated by the building would increase traffic noise by less than one dBA. A one dBA increase in environmental noise is imperceptible to the untrained human ear.

Mechanical equipment for building operation would be regulated by San Francisco Noise Ordinance 2909 which limits noise at the property line to 70 dBA from 7 a.m. to 10 p.m. and 60 dBA from 10 p.m. to 7 a.m.

Construction would raise noise levels in the surrounding vicinity even though a preliminary soils report determined that pile driving would not be necessary. Construction noise will be further addressed in the EIR.

	<u>Yes</u>	<u>No</u>	<u>Discussed</u>
6. <u>Air Quality/Climate.</u> Could the project:			
*a. Violate any ambient air quality standard or contribute substantially to an existing or projected air quality violation?	___	<u>X</u>	<u>X</u>
*b. Expose sensitive receptors to substantial pollutant concentrations?	___	<u>X</u>	<u>X</u>
c. Permeate its vicinity with objectionable odors?	___	<u>X</u>	___
d. Alter wind, moisture or temperature (including sun shading effects) so as to substantially affect public areas, or change the climate either in the community or region?	<u>X</u>	___	<u>X</u>

No sensitive receptors would be exposed to pollution concentrations. Construction activities would generate dust emissions from the action of wind over exposed earth surfaces. Such emissions would be reduced by about 50% by watering exposed earth surfaces at least twice a day (see page 20 of Mitigation Measures).

Air quality impacts due to project-generated traffic, building operation, cumulative development and project-related localized wind and shadow impacts will be discussed in the EIR.

	<u>Yes</u>	<u>No</u>	<u>Discussed</u>
7. <u>Utilities/Public Services.</u> Could the project:			
*a. Breach published national, state or local standards relating to solid waste or litter control?	___	<u>X</u>	___
*b. Extend a sewer trunk line with capacity to serve new development?	___	<u>X</u>	<u>X</u>
c. Substantially increase demand for schools, recreation or other public facilities?	___	<u>X</u>	___
d. Require major expansion of power, water, or communications facilities?	___	<u>X</u>	<u>X</u>

The project would incorporate more extensive fire protection measures than existing older buildings in the area because of more stringent code standards now in effect. New buildings must conform to Life Safety Provisions of the San Francisco Building Code which require automatic fire sprinklers, a fire alarm system, and emergency power and special elevator controls. The project, by itself, would not require more fire department personnel or equipment. Water for fighting fires would be available to the project from both the domestic and high-pressure water systems. ¹Effects of cumulative development on Fire Department services will be discussed in the EIR.

The project site is within Police Southern Station's district. The site area is patrolled by radio-dispatched patrol cars 24 hours a day. There is no foot patrol. The proposed development would increase property and the daytime population on the site, thus increasing the potential for crime. Crime is low in the project area due to the low opportunity for crime and the low permanent population in the area. The increasing development of office buildings in the South of Market area could cause an increase in commercial burglaries. Additional personnel or equipment would not be required by the police department due to the project. ²

There would be an increase in demand for communication systems. Pacific Telephone would make any improvements necessary to provide adequate service and anticipates no difficulty in meeting the service demands generated by the project. ³

The development would result in water consumption at the site of approximately 30,000 gallons per day (gpd). A 6- and an 8-inch water main in Second Street would be available for water service. ⁴

The amount of wastewater generated by the project would be about the same as the water consumed. The three-by-five-foot sewers in Second, Folsom and Clementina Streets could serve the project. The sewer also meets the design criteria to satisfy the five-year storm capacity. ⁵

The proposed project would generate about one ton of solid waste per workday. The Golden Gate Disposal Company would remove solid waste and does not anticipate problems in meeting the demand generated by the proposed development. Solid waste is currently disposed of at Mountain View. As of November 1, 1983, solid waste is transported to the Altamont Landfill in Alameda County. The disposal company

encourages the use of trash compactors to reduce the indirect transportation impacts associated with disposal of waste.⁶

¹Edward Phipps, Assistant Chief, Support Services, San Francisco Fire Department, letter, October 11, 1983.

²Hal Waterman, Planning and Research Division, San Francisco Police Department, telephone communication, June 30, 1983.

³Leo Ladner, Building Industry consultant, Pacific Telephone, telephone communication, September 17, 1983.

⁴George Nakagaki, Manager, City Distribution, San Francisco Water Department, letter, September 13, 1983.

⁵Nathan Lee, Engineering Associate II, Bureau of Sanitary Engineering, telephone communication, August 17, 1983.

⁶Fiore Garbarino, Office Manager, Golden Gate Disposal Company, telephone communication, August 17, 1983.

	<u>Yes</u>	<u>No</u>	<u>Discussed</u>
8. <u>Biology</u> . Could the project:			
*a. Substantially affect a rare or endangered species of animal or plant or the habitat of the species?	___	<u>X</u>	___
*b. Substantially diminish habitat for fish, wildlife or plants, or interfere substantially with the movement of any resident or migratory fish or wildlife species?	___	<u>X</u>	___
c. Require removal of substantial numbers of mature, scenic trees?	___	<u>X</u>	___

The project site is totally covered by buildings or by pavement for parking. There are no rare or endangered species of plant or animal habitats on site. These matters do not require further discussion in the EIR.

	<u>Yes</u>	<u>No</u>	<u>Discussed</u>
9. <u>Geology/Topography.</u> Could the project:			
*a. Expose people or structures to major geologic hazards (slides, subsidence, erosion and liquefaction)?	—	<u>X</u>	<u>X</u>
b. Change substantially the topography or any unique geologic or physical features of the site?	—	<u>X</u>	—

The project site is in a Special Geologic Study Area as designated in the Community Safety Element of the San Francisco Comprehensive Plan. In order to obtain a building permit, the project sponsor would be required to obtain a site specific soils report from a California-licensed soils engineer or geologist and to construct the building in accordance with the recommendations of the report regarding foundation and structure.¹ According to the geologic map of San Francisco² the project site is underlain by about 30 feet of artificial fill, 4 feet of Bay Mud and 72 feet of clayey sand. Since the groundwater table in the vicinity of the project occurs within 15 feet of the surface, dewatering may be necessary during the excavation and foundation construction phase.³ Mitigations for dewatering appear on page 18 of this document. Pile driving would not occur as underlying materials would provide adequate foundation support and seismic stability. Further investigation will determine whether a spread or mat foundation would be used.⁴ These matters do not require further discussion in the EIR.

¹ Department of City Planning, "Community Safety Element," The Comprehensive Plan, City and County of San Francisco, adopted September 24, 1974 (CPC Resolution 7241), pages 15 and 16; Objective 1, Policy 4.

² J. Schlocker, Geology of the San Francisco North Quadrangle, California, U.S. Geological Survey Professional Paper 782, U.S. Government Printing Office, Washington, D.C., 1974, plate 3, scale 1:24,000.

³ J.P. Bowers & H.T. Taylor, Geotechnical Investigation, Second and Folsom Project, San Francisco, California, Harding-Lawson Associates, San Francisco, California, September 3, 1980, plate 2.

⁴ Henry T. Taylor and R. William Rudolph, Preliminary Soils Investigation, Second and Folsom Streets, Northeast Corner, San Francisco, California, Harding-Lawson Associates, San Francisco, December 28, 1983, Section B, page 4.

	<u>Yes</u>	<u>No</u>	<u>Discussed</u>
10. <u>Water</u> . Could the project:			
*a. Substantially degrade water quality, or contaminate a public water supply?	—	<u>X</u>	—
*b. Substantially degrade or deplete ground water resources, or interfere substantially with ground water recharge?	—	<u>X</u>	—
*c. Cause substantial flooding, erosion or siltation?	—	<u>X</u>	—

There is no surface water at the site. The site is currently impervious, covered by existing buildings and paved parking lots. The proposed project would not alter this situation. Runoff would continue to drain into the combined City storm/sewer system. These matters require no further discussion in the EIR.

	<u>Yes</u>	<u>No</u>	<u>Discussed</u>
11. <u>Energy/Natural Resources</u> . Could the project:			
*a. Encourage activities which result in the use of large amounts of fuel, water, or energy, or use these in a wasteful manner?	—	<u>X</u>	<u>X</u>
b. Have a substantial effect on the potential use, extraction, or depletion of a natural resource?	—	<u>X</u>	<u>X</u>

Based on previous analysis for other projects, office buildings generally are not high energy consumers. The project would increase on-site energy consumption. The project would not encourage wasteful energy-related activities or have a substantial effect on the depletion of a natural resource. The project would conform to Title 24 of the California Administrative Code. For these reasons the project would not have a significant effect on energy; however, pursuant to San Francisco Administrative Code, Chapter 31, project-generated and cumulative energy consumption impacts will be discussed in the EIR.

	<u>Yes</u>	<u>No</u>	<u>Discussed</u>
12. <u>Hazards</u> . Could the project:			
*a. Create a potential public health hazard or involve the use, production or disposal of materials which pose a hazard to people or animal or plant populations in the area affected?	—	<u>X</u>	—
*b. Interfere with emergency response plans or emergency evacuation plans?	—	<u>X</u>	<u>X</u>
c. Create a potentially substantial fire hazard?	—	<u>X</u>	<u>X</u>

The project, as a mixed-use retail and commercial building with parking, would not create a potential public health hazard through the production or disposal of harmful materials. An evacuation and emergency response plan would be developed as part of the proposed project (see D., Mitigation Measures, page 18). The project's emergency plan would be coordinated with the City's emergency planning activities. The project would not create a substantial fire hazard because it would incorporate more extensive fire protection measures than most existing buildings in the area to comply with more stringent code standards now in effect. These issues will not be discussed in the EIR.

	<u>Yes</u>	<u>No</u>	<u>Discussed</u>
13. <u>Cultural</u> . Could the project:			
*a. Disrupt or adversely affect a prehistoric or historic archaeological site or a property of historic or cultural significance to a community or ethnic or social group; or a paleontological site except as a part of a scientific study?	—	<u>X</u>	<u>X</u>
*b. Conflict with established recreational, educational, religious or scientific uses of the area?	—	<u>X</u>	—
c. Conflict with preservation of any buildings of City landmark quality?	—	<u>X</u>	—

The excavation required for new foundations would occur in existing disturbed soils so there would be limited potential for encountering cultural resources during construction. However, the project sponsor has included a mitigation measure as part of the project which addresses this potential impact (see D., Mitigation Measures, page 19). Issues associated with cultural impacts require no further discussion in the EIR.

The two buildings on the project site have been rated "C" by the expanded architectural survey by Heritage,¹ but have not been designated as having landmark, historic or architectural value by the Department of City Planning. Neither of these two buildings is listed in the National Register of Historic Places, the California Inventory of Historic Resources or California Historical Landmarks.

¹A "C" (contextual importance) rating indicates that a building is distinguished by its scale, materials, compositional treatment, cornice and other features as noted on pages 12 and 13 of Splendid Survivors, Foundation for San Francisco's Architectural Heritage, California Living Books, 1979.

	<u>Yes</u>	<u>No</u>	<u>Discussed</u>
C. OTHER			
Require approval of permits from City Departments other than DCP or BBI, or from Regional, State or Federal Agencies?	<u> </u>	<u> X </u>	<u> </u>

D. MITIGATION MEASURES

	<u>Yes</u>	<u>No</u>	<u>N/A</u>	<u>Discussed</u>
1. If any significant effects have been identified, are there ways to mitigate them?	<u> X </u>	<u> </u>	<u> </u>	<u> X </u>
2. Are all mitigation measures identified above included in the project?	<u> </u>	<u> X </u>	<u> </u>	<u> X </u>

MITIGATION MEASURES INCLUDED AS PART OF THE PROJECT:

1. HAZARDS

An evacuation and emergency response plan would be developed by the project sponsor or building management staff, in consultation with the Mayor's Office of Emergency Services, to ensure coordination between the City's emergency planning activities and the project's plan and to provide for building occupants in the event of an emergency. The project's plan would be reviewed by the Office of Emergency Services and implemented by building management insofar as feasible before issuance of final building permits by the Department of Public Works.

2. GEOLOGY/TOPOGRAPHY

The project sponsor would obtain a site-specific soils report from a California-licensed soils engineer or geologist and construct the project in accordance with the recommendations of that report regarding foundation and structure.

Should dewatering be necessary, the final soils and foundation report shall address the potential settlement and subsidence impacts of dewatering of the site. Based upon this discussion, the report shall contain a determination as to whether or not a lateral movement and settlement survey should be done to monitor any horizontal or vertical movement of surrounding buildings and adjacent streets. If a monitoring survey is recommended, the Department of Public Works will require that a Special Inspector (as defined in Article 3 of the Building Code) be retained by the project sponsor to perform this monitoring. If, in the judgment of the Special Inspector, unacceptable movement were to occur during dewatering, groundwater recharge would be used to halt this settlement. Costs for the survey and any necessary repairs to service under the street would be borne by the contractor.

During excavation, shoring and bracing would be used to reduce soil movements beneath adjacent structures and streets. If necessary, the excavation would be kept dry by sump pumping as required rather than through the use of dewatering wells. This would prevent consolidation of soils supporting adjacent structures and would avoid exposing nearby wooden foundations to dry rot.

3. NOISE

An acoustical analysis would be prepared under the supervision of a person experienced in the field of acoustical engineering detailing the reduction requirements of the project. Necessary noise insulation features would be included in the project design. In order to ensure compliance with the Master Plan, a copy of this report would be submitted with the building permit application.

The construction contract would specify that the contractor muffle equipment so that noise levels would not exceed the limits stated in the City Noise Ordinance (Article 29, San Francisco Administrative Code, 1972).

Both intake and exhaust of impact tools and equipment would be muffled to the satisfaction of the Director of Public Works. Mufflers and shrouds on jackhammers, and impact wrenches could reduce the noise impacts of these operations by 10-15 dBA. This would reduce the impacts of these operations to 60 dBA or below at adjacent office or retail spaces with windows closed; with open windows noise levels would be distracting but would not interfere with telephone use.

4. ARCHITECTURAL AND HISTORIC RESOURCES

Should evidence of cultural or historic artifacts of significance be found during project excavation, the Environmental Review Officer and the President of the Landmarks Preservation Advisory Board would be notified. The project sponsor would select an archaeologist or other expert to help the Office of Environmental Review determine the significance of the find and whether feasible measures, including appropriate security measures, could be implemented to preserve or recover such artifacts. The Environmental Review Officer would then recommend specific mitigation measures, if necessary, and recommendations would be sent to the State Office of Historic Preservation. Excavation or construction which might damage the discovered cultural resources would be suspended for a maximum of four weeks to permit inspection, recommendation and retrieval, if appropriate.

5. AIR QUALITY AND CLIMATE

The California Health and Safety Code requires that measures be taken to minimize dust generation by watering demolition materials and soils. An effective watering program (complete coverage twice daily) can reduce emissions by about 50%. The project sponsor would require the contractor to implement a program to water the site at least twice a day, which would reduce airborne construction dust and particulates by about 50% and reduce the likelihood of exceeding the state and federal standards.

Additional mitigation measures for the project will be discussed in the EIR if need is identified.

E. ALTERNATIVES

The following alternatives to the proposed project will be discussed in the EIR:

1. No project

This alternative will discuss the conditions which would prevail on the project site if no development occurred.

2. The Downtown Plan

This alternative will discuss a project consistent with the Downtown Plan but which does not include transfer of development rights.

3. Downtown Plan with Transfer of Development Rights (TDRs)

This alternative will analyze a project which would be consistent with the Downtown Plan and incorporate development rights transferred from other properties, thus increasing the project size.

4. Mixed-Use Development with Residential

This alternative will analyze the development of a project with office uses, residential, and ground-level retail.

5. Light-Industrial

In this alternative, a project with ground-level, light-industrial uses, such as printing, will be analyzed.

F. MANDATORY FINDINGS OF SIGNIFICANCE

	<u>Yes</u>	<u>No</u>	<u>Discussed</u>
*1. Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?	___	<u>X</u>	___
*2. Does the project have the potential to achieve short-term, to the disadvantage of long-term, environmental goals?	___	<u>X</u>	___
*3. Does the project have possible environmental effects which are individually limited, but cumulatively considerable? (Analyze in the light of past projects, other current projects, and probable future projects.)	<u>X</u>	___	___

*4. Would the project cause substantial adverse effects on human beings, either directly or indirectly?

___ X ___

*5. Is there a serious public controversy concerning the possible environmental effect of the project?

___ X ___

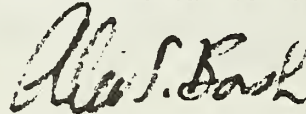
G. ON THE BASIS OF THIS INITIAL STUDY:

___ I find the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared by the Department of City Planning.

___ I find that although the proposed project could have a significant effect on the environment, there WILL NOT be a significant effect in this case because the mitigation measures, numbers ___, in the discussion have been included as part of the proposed project. A NEGATIVE DECLARATION will be prepared.

X I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

Alec S. Bash
Environmental Review Officer



for
Dean L. Macris
Director of Planning

Date: February 10, 1984

APPENDIX B
TRANSPORTATION

TABLE B-1
PEDESTRIAN FLOW REGIMES

<u>Flow Regime</u>	<u>Walking Speed Choice</u>	<u>Conflicts</u>	<u>Average Speed Rate (P/F/M)¹</u>
Open	Free Selection	None	0.5
Unimpeded	Some Selection	Minor	0.5 - 2.0
Impeded	Some Selection	High Indirect Interaction	2.0 - 6.0
Constrained	Some Restriction	Multiple	6.0 - 10.0
Crowded	Restricted	High Probability	10.0 - 14.0
Congested	All Reduced	Frequent	14.0 - 16.0
Jammed	Shuffle Only	Unavoidable	16.0+

¹P/F/M - Pedestrians per foot of sidewalk width per minute.

Source: Boris Pushkarev and Jeffrey M. Zupan, Urban Space for Pedestrians, Massachusetts, MIT Press, 1975.

INTERSECTION ANALYSIS

The capacity analysis of each intersection at which a turning movement count was made utilized the "critical lane" method. This method of capacity calculation is a summation of maximum conflicting approach lane volumes that gives the capacity of an intersection in vehicles per hour per lane. (This method is explained in detail in an article entitled "Intersection Capacity Measurement Through Critical Movement Summations: A Planning Tool," by Henry B. McInerney and Stephen G. Peterson, January 1971, Traffic Engineering. This method is also explained in "Interim Materials on Highway Capacity," Transportation Research Circular No. 212, Transportation Research Board, January 1980). The maximum service volume for Level of Service E was assumed as intersection capacity. A service volume is the maximum number of vehicles that can pass an intersection during a specified time period in which operating conditions are maintained corresponding to the selected and specified Level of Service (see Table D-3). For each intersection analyzed, the existing peak-hour volume was computed and a volume-to-capacity (v/c) ratio was calculated by dividing the existing volume by the capacity at Level of Service E.

The pedestrian analysis involves a calculation of pedestrian flows and the quality of flow in the nearby cross walks. Pedestrian volumes are actually counted and future volumes (due to the proposed project and cumulative development) are added. The pedestrian flow is calculated as a rate of pedestrian volume per foot of walkway width per minute. Based upon the identified pedestrian flows, the quality of flow is then determined in terms of walking speed and conflicts. The pedestrian flow volumes range from "open" to "jammed" representing a full range of flow quality. (This method is presented in detail in the book Urban Space for Pedestrians by Boris Pushkarev and Jeffrey M. Zupan, MIT Press, 1975.)

TABLE B-2

LEVELS OF SERVICE DEFINITIONS¹
FOR SIGNALIZED INTERSECTIONS

Level of Service A

Level of Service A describes a condition where the approach to an intersection appears quite open and turning movements are made easily. Little or no delay is experienced. No vehicles wait longer than one red traffic signal indication. The traffic operation can generally be described as excellent.

Level of Service B

Level of Service B describes a condition where the approach to an intersection is occasionally fully utilized and some delays may be encountered. Many drivers begin to feel somewhat restricted within groups of vehicles. The traffic operation can generally be described as very good.

Level of Service C

Level of Service C describes a condition where the approach to an intersection is often fully utilized and back-ups may occur behind turning vehicles. Most drivers feel somewhat restricted, but not objectionably so. The driver occasionally must have to wait more than one red traffic signal indication. The traffic operation can generally be described as good.

Level of Service D

Level of Service D describes a condition of increasing restriction causing substantial delays and queues of vehicles on approaches to the intersection during short times within the peak period. However, there are enough signal cycles with lower demand such that queues are periodically cleared, thus preventing excessive back-ups. The traffic operation can generally be described as fair.

Level of Service E

Capacity occurs at Level of Service E. It represents the most vehicles that any particular intersection can accommodate. At capacity there may be long queues of vehicles waiting upstream of the intersection and vehicles may be delayed up to several signal cycles. The traffic operation can generally be described as poor.

Level of Service F

Level of Service F represents a jammed condition. Back-ups from locations downstream or on the cross street may restrict or prevent movement of vehicles out of the approach under consideration. Hence, volumes of vehicles passing through the intersection vary from signal cycle to signal cycle. Because of the jammed condition, this volume would be less than capacity.

¹ City and County of San Francisco, Department of Public Works, Traffic Engineering Division.

APPENDIX B

TABLE B-3

PASSENGER LEVELS OF SERVICE ON BUS TRANSIT

Level of Service A	Volume/Capacity (v/c) Ratio*
Level of Service A describes a condition of excellent passenger comfort. Passenger loadings are low with less than half the seats filled. There is little or no restriction on passenger maneuverability. Passenger loading times do not affect scheduled operation.	0.00-0.50
Level of Service B	
Level of Service B is in the range of passenger comfort with moderate passenger loadings. Passengers still have reasonable freedom of movement on the transit vehicle. Passenger loading times do not affect scheduled operations.	0.51-0.75
Level of Service C	
Level of Service C is still in the zone of passenger comfort, but loadings approach seated capacity and passenger maneuverability on the transit vehicle is beginning to be restricted. Relatively satisfactory operating schedules are still obtained as passenger loading times are not excessive.	0.76-1.00
Level of Service D	
Level of Service D approaches uncomfortable passenger conditions with tolerable numbers of standees. Passengers have restricted freedom to move about on the transit vehicle. Conditions can be tolerated for short periods of time. Passenger loadings begin to affect schedule adherence as the restricted freedom of movement for passengers requires longer loading times.	1.01-1.25
Level of Service E	
Level of Service E passenger loadings approach manufacturers' recommended maximums and passenger comfort is at low levels. Freedom to move about is substantially diminished. Passenger loading times increase as mobility of passengers on the transit vehicle decreases. Scheduled operation is difficult to maintain at this level. Bunching of buses tends to occur which can rapidly cause operations to deteriorate.	1.26-1.50
Level of Service F	
Level of Service F describes crush loadings. Passenger comfort and maneuverability is extremely poor. Crush loadings lead to deterioration of scheduled operations through substantially increased loading times.	1.51-1.60

Source: Interim Materials on Highway Capacity, Transportation Research Circular 212, pages 73-113, Transportation Research Board, 1980.

APPENDIX B

TABLE B-4
TRAFFIC LEVELS OF SERVICE FOR FREEWAYS

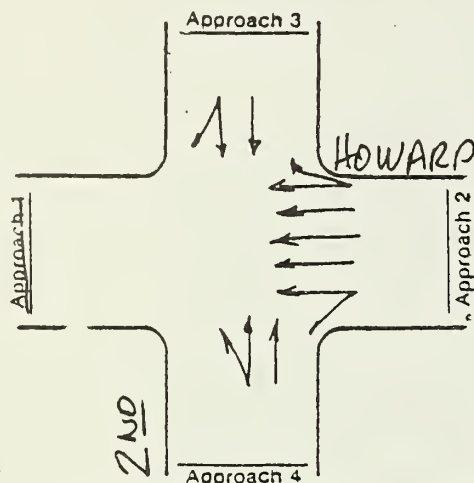
Level of Service A	Volume/Capacity (v/c) Ratio*
Level of Service A describes a condition of free flow, with low volumes and high speeds. Traffic density is low, with speeds controlled by driver desires, speed limits, and physical roadway conditions. There is little or no restriction in maneuverability due to the presence of other vehicles, and drivers can maintain their desired speeds with little or no delay.	0.00-0.60
Level of Service B	0.61-0.70
Level of Service B is in the higher speed range of stable flow, with operating speeds beginning to be restricted somewhat by traffic conditions. Drivers still have reasonable freedom to select their speed and lane of operation. Reductions in speed are not unreasonable, with a low probability of traffic flow being restricted.	
Level of Service C	0.71-0.80
Level of Service C is still in the zone of stable flow, but speeds and maneuverability are more closely controlled by the higher volumes. Most of the drivers are restricted in their freedom to select their own speed, change lanes or pass. A relatively satisfactory operating speed is still obtained.	
Level of Service D	0.81-0.90
Level of Service D approaches unstable flow, with tolerable operating speeds being maintained though considerably affected by changes in operating conditions. Fluctuations in volume and temporary restrictions to flow may cause substantial drops in operating speeds. Drivers have little freedom to maneuver, and comfort and convenience are low, but conditions can be tolerated for short periods of time.	
Level of Service E	0.91-1.00
Level of Service E cannot be described by speed alone, but represents operations at even lower operating speeds (typically about 30 to 35 mph) than in Level D, with volumes at or near the capacity of the highway. Flow is unstable, and there may be stoppages of momentary duration.	
Level of Service F	1.00+
Level of Service F describes forced flow operation at low speeds (less than 30 mph), in which the freeway acts as storage for queues of vehicles backing up from a restriction downstream. Speeds are reduced substantially and stoppages may occur for short or long periods of time because of downstream congestion. In the extreme, both speed and volume can drop to zero.	

*Capacity is defined as level of Service E.

Source: Highway Capacity Manual, Special Report 87, Highway Research Board, 1965.

Intersection SECOND/HOWARDDesign Hour PM PEAKOther Conditions EXISTING TRAFFIC (COUNTED 3/2/81)

1. Identify Lane Geometry



4. Left Turn Check

- Number of change intervals per hour
- Left turn capacity on change interval, in vph
- G/C Ratio
- Opposing volume in vph
- Left turn capacity on green, in vph
- Left turn capacity in vph ($b + c$)
- Left turn volume in vph
- Is volume > capacity ($g > 0$)?

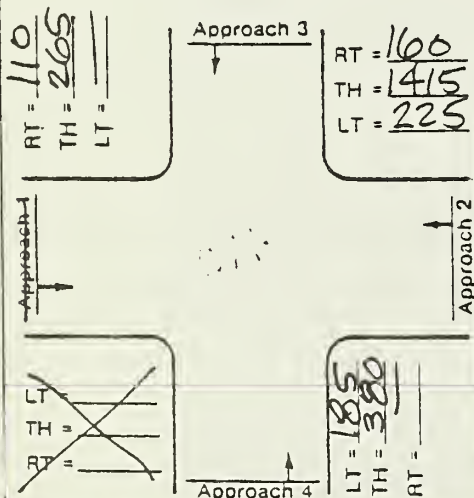
Approach			
1	2	3	4

6b. Volume Adjustment for Multiphase Signal Overlap

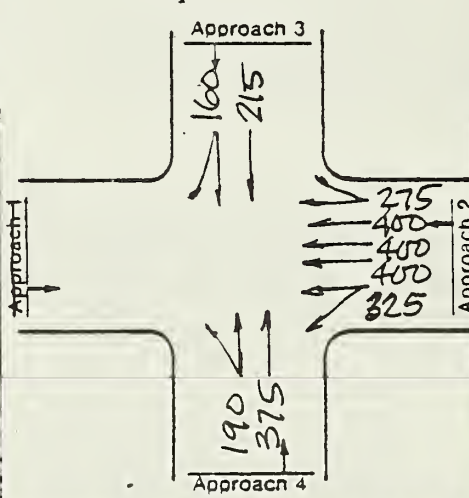
Probable Phase	Possible Critical Volume in vph	Volume Carryover to next phase	Adjusted Critical Volume in vph
----------------	---------------------------------	--------------------------------	---------------------------------

2φ

2. Identify Volumes, in vph



5. Assign Lane Volumes, in vph



7. Sum of Critical Volumes

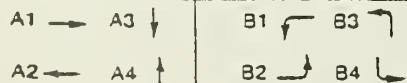
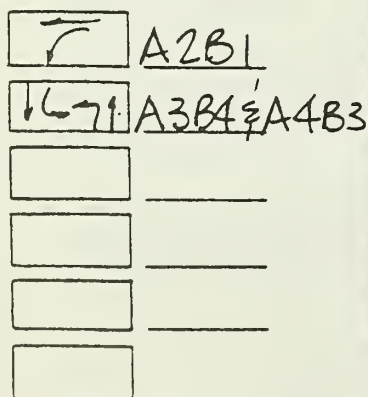
$$400 + 375 + \dots = 775 \text{ vph}$$

8. Intersection Level of Service

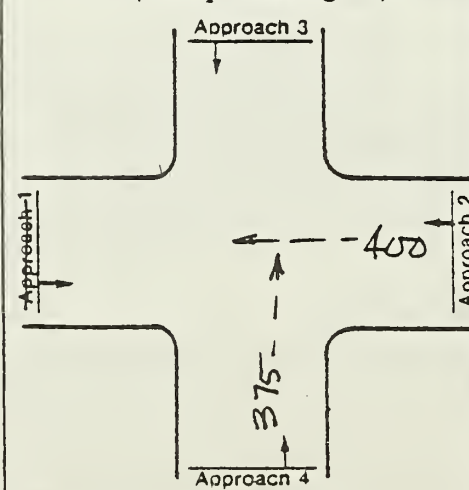
A

Notes:

3. Identify Phasing



6a. Critical Volumes, in vph (two phase signal)



Service Level Ranges

Level	Sum of Critical Volumes		
	2 Phase	3 Phase	4+ Phases
A	900	855	825
B	1050	1000	965
C	1200	1140	1100
D	1350	1275	1225
E	1500	1425	1375
F	not applicable		

INTERSECTION CAPACITY ANALYSIS

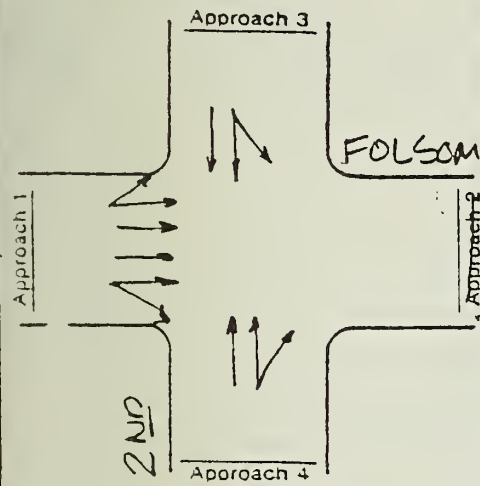
4:30-5:30

Intersection SECOND/FOLSOM

Design Hour P.M. PEAK

Other Conditions EXISTING TRAFFIC (COUNTED 5/8/81)

1. Identify Lane Geometry



4. Left Turn Check

- Number of change intervals per hour
- Left turn capacity on change interval, in vph
- G/C Ratio
- Opposing volume in vph
- Left turn capacity on green, in vph
- Left turn capacity in vph (b + e)
- Left turn volume in vph
- Is volume > capacity (g > 0)?

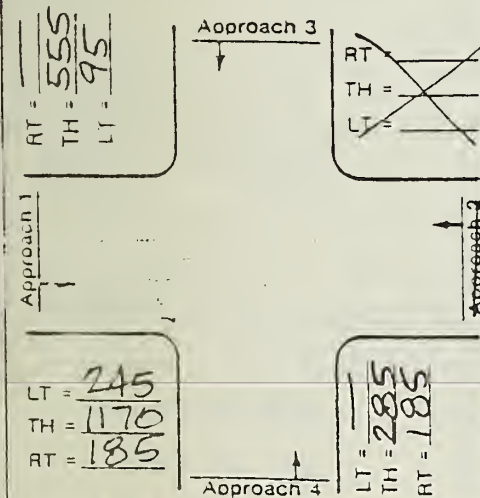
Approach			
1	2	3	4

6b. Volume Adjustment for Multiphase Signal Overlap

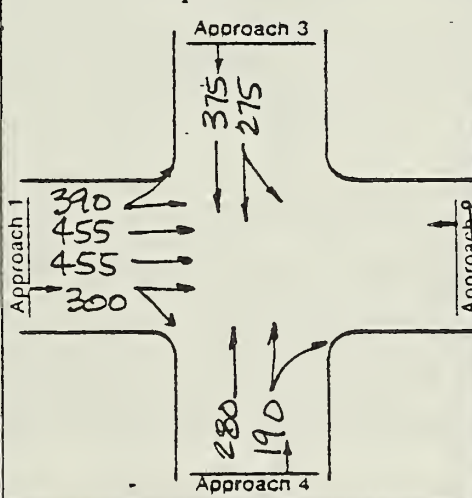
Probable Phase	Possible Critical Volume in vph	Volume Carryover to next phase	Adjusted Critical Volume in vph
----------------	---------------------------------	--------------------------------	---------------------------------

2φ

2. Identify Volumes, in vph



5. Assign Lane Volumes, in vph



7. Sum of Critical Volumes

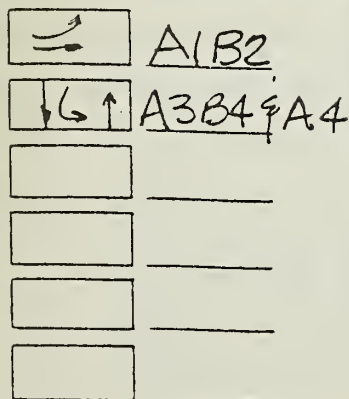
455 375 — —
= 830 vph

8. Intersection Level of Service

A

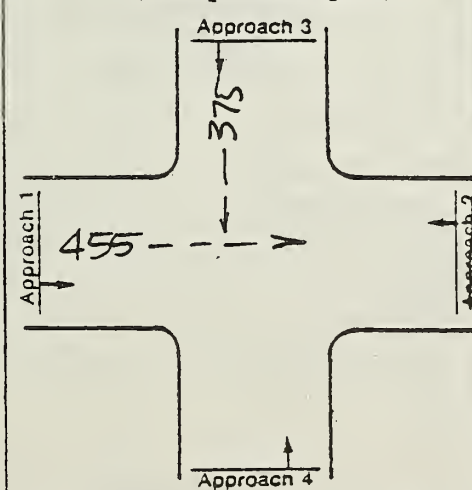
Notes:

3. Identify Phasing



A1 → A3 ↓
A2 ← A4 ↑
B1 → B3 ↓
B2 → B4 ↓

6a. Critical Volumes, in vph (two phase signal)



Service Level Ranges

Level	Sum of Critical Volumes		
	2 Phase	3 Phase	4+ Phases
A	900	855	825
B	1050	1000	965
C	1200	1140	1100
D	1350	1275	1225
E	1500	1425	1375
F	not applicable		

INTERSECTION CAPACITY ANALYSIS

Intersection First / Folsom

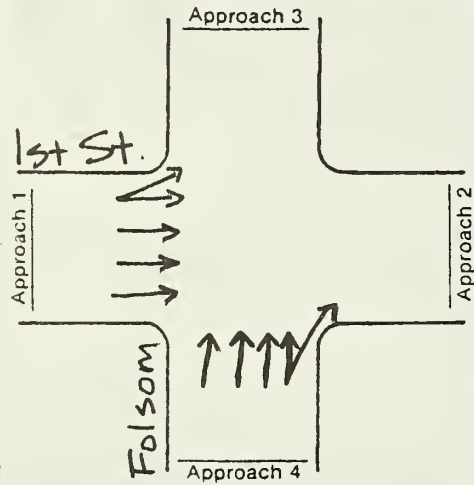
Design Hour 4:30-6:30 PM Peak

Other Conditions Existing Traffic (counted 12/6/84)

1. Identify Lane Geometry

4. Left Turn Check

6b. Volume Adjustment for Multiphase Signal Overlap



- Number of change intervals per hour
- Left turn capacity on change interval, in vph
- G/C Ratio
- Opposing volume in vph
- Left turn capacity on green, in vph
- Left turn capacity in vph (b + e)
- Left turn volume in vph
- Is volume > capacity (g > f)?

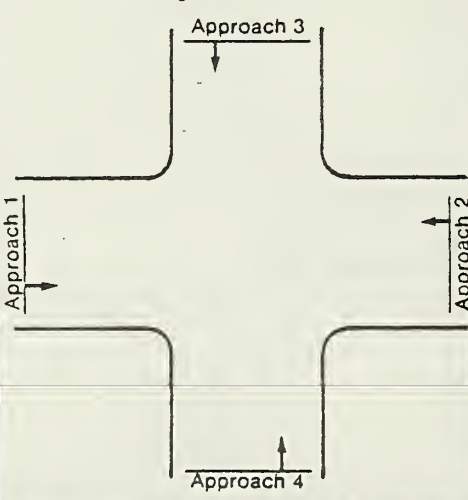
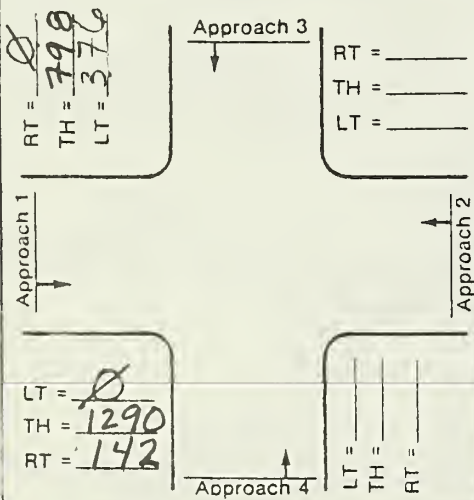
Approach			
1	2	3	4

Probable Phase	Possible Critical Volume in vph	Volume Carryover to next phase	Adjusted Critical Volume in vph

2. Identify Volumes, in vph

5. Assign Lane Volumes, in vph

7. Sum of Critical Volumes



_____ + _____ + _____ + _____
= _____ vph

8. Intersection Level of Service

Notes:

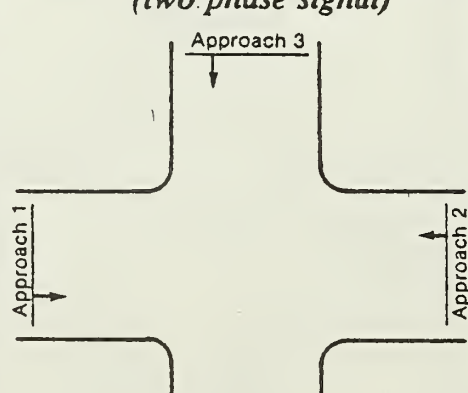
A/B AT FOLSOM
E/F AT FIRST

3. Identify Phasing

6a. Critical Volumes, in vph (two phase signal)

Service Level Ranges

Level	Sum of Critical Volumes		
	2 Phase	3 Phase	4+ Phases
A	900	855	825
B	1050	1000	965
C	1200	1140	1100
D	1350	1275	1225
E	1500	1425	1375
F	not applicable		



A1 → A3 ↓ B1 ← B3 →
A2 ← A4 ↑ B2 → B4 ↓

APPENDIX C

CUMULATIVE DEVELOPMENT

The list of office and retail projects shown in Table C-1 was prepared as a background document for a land use-based method of analyzing cumulative impacts. A land use-based cumulative analysis is one of the two methods of cumulative analyses suggested by the State CEQA Guidelines (Section 15130(b) (1) (A)), whereby a list of related projects is used to determine the combined effects of the whole and to determine the contribution of a proposed office or retail project to the overall cumulative effect. This is only one method of determining cumulative impacts. The other method of determining cumulative impacts is an analysis based on estimates of total employment projected for the area. This latter method is permitted by State Guidelines Section 15130(b) (1) (B) if the employment projections are based on an appropriate planning document.

The attached cumulative list is an expanded version of past lists and includes all office and large retail projects proposed, approved, under construction and recently completed in the greater downtown area which have active applications in the Department of City Planning. This list is appropriate for use only in a land use-based analysis of the cumulative impacts of office/retail projects in the greater downtown.

Relevant Redevelopment Agency projects have been included in the list. The Rincon Point/South Beach Redevelopment Area includes four projects: 77,000 square feet of office space at 181 Steuart Street, 200,000 square feet of office space on First Street, and a 30,000-square-foot office building, all in at least preliminary negotiation stages between the Agency and potential developers; and 453,000 square feet of office space proposed by the U.S. Post Office at the Rincon Annex site (source: San Francisco Redevelopment Agency). The listing for the Yerba Buena Gardens in the YBC Redevelopment Area includes 1.2 million square feet of office space in the Olympia and York proposal (source: S.F. Redevelopment Agency). Other office buildings in the YBC and applicable parts of the Western Addition Redevelopment Areas are listed under individual

APPENDIX C

TABLE C-1

CUMULATIVE DOWNTOWN OFFICE DEVELOPMENT IN SAN FRANCISCO
AS OF MARCH 10, 1984

PROJECTS UNDER FORMAL REVIEW

Assessor's Block	Case No.	Project Name	Office Gross Sq. Ft.		Retail Gross Sq. Ft.	
			Total New Construction	Net New Construction	Total New Construction	Net New Construction
59	83.177E	1620 Montgomery	82,270	45,390	---	---
110	82.129E	Embarcadero Terraces (1000 Front)	139,000	139,000	3,000	3,000
112	83.447E	1100 Sansome	55,000	48,000	---	---
113	82.418E	1171 Sansome	30,000	30,000	---	---
113	82.64603	220 Green	3,520	3,520	---	---
130	83.612C	1558 Powell	2,500	2,500	---	---
136	83.476V	962 Battery	15,000	15,000	---	---
192	83.412ED	1055 Stockton	---	---	81,500	66,500
194	83.128E	732 Washington	17,500	17,500	11,240	11,240
195	82.643E	660 Washington	3,938	3,938	---	---
227	82.463E	505 Montgomery	327,300	300,670	12,100	-4,775
228	83.422E	560 Sacramento	48,000	31,000	---	---
229	83.222EC	Embarcadero West	575,000	382,000	9,000	9,000
236	82.511E	222 Front	40,250	33,400	3,250	0
258	82.421E	Pine/Kearny	186,000	186,000	6,750	6,750
266	83.420ED	98 Battery	169,000	106,500	---	---
267	83.421ED	225 Pine	134,000	134,000	---	---
287	83.91ED	237 Kearney/Bush	99,600	87,800	6,100	2,400
288	83.148E	665 Bush (M)	12,400	2,600	---	-2,700
309	83.333E	212 Stockton	32,220	15,885	21,700	16,200
326	83.12187	156 Ellis	3,200	3,200	---	---
337	82.445E	Stockton/O'Farrell	43,300	25,750	57,950	28,000
331	81.448E	Mixed Use Development (M)	50,000	50,000	70,000	49,000
336	83.21ECV	440 Turk	25,000	8,150	---	---
642	83.218V	1699 Van Ness	20,000	20,000	---	---
814	81.540E	101 Hayes	132,000	132,000	6,000	6,000
3526	83.475V	530-550 9th	42,300	42,300	---	---
3702	83.196E	1169 Market, Trinity	820,000	805,000	40,000	40,000

TABLE C-1
(continued)

PROJECTS UNDER FORMAL REVIEW (continued)

Assessor's Block	Case No.	Project Name	Office Gross Sq. Ft.		Retail Gross Sq. Ft.	
			Total New Construction	Net New Construction	Total New Construction	Net New Construction
3704	83.404	901 Market, Penney's	145 500	126,000	80,000	80,000
3705	83.314E	5th and Market	880,000	778,000	120,000	40,000
3707	SFRA	YBC Office Bldg.	593,000	593,000	---	---
3708	81.297ED	Lincoln Plaza (562 Mission)	405,000	265,000	10,000	10,000
3708	83.75E	49 Stevenson	169,600	136,900	9,800	-2,900
3721	83.331E	100 First @ Mission	348,920	342,000	---	---
3721	83.40EZD	524 Howard	279,000	279,000	15,000	15,000
3735	83.313E	35 Hawthorne	47,400	47,400	2,900	2,900
3736	83.311E	299 2nd @ Folsom	206,000	171,000	10,000	10,000
3744	84.41E	Hills Brothers	635,000	535,000	40,000	40,000
3749	83.464EV	50 Guy Place	17,500	17,500	---	---
3752	83.310E	837 Folsom	200,000	200,000	---	---
3769	83.213EV	59 Harrison	113,500	49,750	---	---
3776	83.451E	501 Bryant	67,000	35,000	14,000	4,000
3778	83.547E	775 Bryant	27,890	27,890	3,675	3,675
3786	82.33E	655 5th/Townsend	126,250	126,250	---	---
3786	83.272EV	525 Brannon	13,500	13,500	---	---
3788	82.352EV	640 2nd Street	39,100	37,400	---	---
3789	82.31EV	615 2nd/Brannan (C)	90,000	70,000	9,300	9,300
3794	83.545V	139 Townsend	51,200	50,000	---	---
3923	81.491EVF	1550 Bryant	80,600	49,600	---	---
-	SFRA	Yerba Buena Gardens	1,340,000	1,340,000	---	---
-	SFRA	Rincon Point/S. Beach	760,000	760,000	---	---
TOTAL PROJECTS UNDER FORMAL REVIEW			9,744,260	8,721,295	643,265	442,590

(C) = Conversion (generally industrial and/or warehouse to office)
(M) = Mixed Use (office/residential/commercial)

TABLE C-1
(continued)

APPROVED PROJECTS

Assessor's Block	Case No.	Project Name	Office Gross Sq. Ft.		Retail Gross Sq. Ft.	
			Total New Construction	Net New Construction	Total New Construction	Net New Construction
65	82.168V	990 Columbus	12,000	12,000	---	---
112	81.258	Ice House Conversion (C)	209,000	209,000	---	---
164	81.583D	50 Osgood Place	22,500	22,500	9,100	9,100
176	82.368E	900 Kearny	25,000	25,000	5,000	5,000
176	83.229E	801 Montgomery	31,800	31,800	6,200	6,200
225	81.403ED	814 Stockton	3,500	3,500	3,300	3,300
265	81.195ED	388 Market at Pine (M)	234,500	85,500	10,000	-8,500
268	81.422D	250 Montgomery at Pine	105,700	65,700	8,000	8,000
271	83.13E	582 Bush	18,100	18,100	800	800
288	81.687ED	222 Kearny/Sutter	150,000	49,950	10,000	-8,400
294	82.87D	44 Campton Place	7,600	7,600	---	---
642	82.224VEC	1750 California	82,525	82,525	---	---
669	81.667ED	1361 Bush	13,000	13,000	---	---
671	82.24V	1581 Bush (C)	16,000	16,000	---	---
690	SFERA	Post/Van Ness	88,000	88,000	---	---
716	81.581ED	Polk/O'Farrell (M)	61,600	61,600	22,400	22,400
818	83.94EV	583-591 Hayes (C)	4,900	4,900	---	---
3504	82.137V	44 Gough (C)	30,000	30,000	---	---
3702	81.549ED	1145 Market	137,500	108,500	8,000	8,000
3705	80.315	Apparel Mart III	332,400	332,400	---	---
3707	81.492ED	90 New Montgomery	124,300	124,300	3,350	3,350
3707	81.245DA	New Montgomery Place	227,500	209,700	2,200	-3,900
3708	81.493ED	71 Stevenson	324,600	324,600	6,200	6,200
3709	81.113ED	Central Plaza	353,100	136,300	17,400	17,400
3717	81.183E	123 Mission	342,800	342,800	---	---
3724	81.102E	Holland Ct. (C)	27,850	27,850	---	---
3729	82.86D	774 Tehama	5,800	5,800	---	---
3733	EE81.2	868 Folsom	65,000	65,000	---	---
3733	82.29E	832 Folsom	50,000	50,000	---	---
3735	SFERA	75 Hawthorne (C)	61,900	61,900	---	---
3738	DR80.5	315 Howard	294,000	294,000	3,200	3,200
3749	EE81.18	Marathon - 2nd & Folsom	686,700	686,700	35,300	35,300
3750	82.241E	600 Harrison	228,000	228,000	10,000	10,000
3750	82.77V	642 Harrison (C)	54,400	45,900	---	---
3764/74	82.591E	Second Street Square (C)	333,000	263,000	25,000	25,000
3775	81.147V	338-340 Brannan (C)	36,000	36,000	---	---

TABLE C-1
(continued)

APPROVED PROJECTS (continued)

Assessor's Block	Case No.	Project Name	Office Gross Sq. Ft.		Retail Gross Sq. Ft.	
			Total New Construction	Net New Construction	Total New Construction	Net New Construction
3776	EE81.59	Welsh Commons (M)	55,600	55,600	12,000	12,000
3788	81.296Z	690 2nd/Townsend (C)	16,600	16,600	16,000	16,000
3789	81.552EV	625 2nd/Townsend (C)	157,000	157,000	---	---
3794	81.569EV	123 Townsend	104,000	49,500	---	---
3794		155 Townsend	19,000	19,000	---	---
3803	81.244D	China Basin Expansion	196,000	196,000	---	---
9900	81.63E	Ferry Building Rehab	309,500	97,500	163,500	124,000
TOTAL APPROVED PROJECTS			5,658,275	4,760,625	376,950	294,450

(C) = Conversion (generally industrial and/or warehouse to office)
(M) = Mixed Use (office/residential/commercial)

TABLE C-1
(continued)

PROJECTS UNDER CONSTRUCTION

Assessor's Block	Case No.	Project Name	Office Gross Sq. Ft.		Retail Gross Sq. Ft.	
			Total New Construction	Net New Construction	Total New Construction	Net New Construction
58	82.234E	Roundhouse (C)	45,000	45,000	3,000	3,000
136	81.243E	955 Front/55 Green	50,000	50,000	---	---
143	81.353ED	1000 Montgomery (C)	39,000	39,000	---	---
146	83.99EC	644 Broadway	42,800	42,800	---	---
161	DR80.191	Mirawa Center	36,000	36,000	30,650	30,650
166	DR80.15	750 Battery	105,400	105,400	12,800	12,800
166	CU81.7	222 Pacific at Front (C)	142,000	142,000	---	---
167	SFRA	Golden Gateway III	103,000	103,000	---	---
176	81.673EACV	Columbus/Pacific (Savoy)	49,000	49,000	22,000	22,000
208	81.104EDC	Washington/Montgomery (M)	235,000	233,300	4,000	-1,200
227	EE80.296	Bank of Canton	230,500	177,500	---	-800
239	DR80.1	456 Montgomery	160,550	160,550	24,250	24,250
240	81.705ED	580 California/Kearny	329,500	260,000	6,500	6,500
261	81.249ECQ	345 California (M)	640,000	466,500	15,500	15,500
262	81.206D	130 Battery	41,000	41,000	---	---
270	81.175ED	466 Bush	86,700	86,700	7,800	2,200
271	81.517	453 Grant	27,500	27,500	6,200	6,200
288	81.461EC	333 Bush (Campeau) (M)	498,400	458,100	20,900	20,900
288	DR80.24	101 Montgomery	264,000	234,000	4,900	-14,100
289	81.308D	One Sansome	603,000	603,000	7,000	7,000
311	82.120D	S. F. Federal	246,800	218,850	1,600	-9,440
351	DR79.24	Mardikian/1170 Market	40,000	40,000	---	---
641	82.200CV	1735 Franklin (C)	8,600	8,600	---	---
672	SFRA	Wealth Investments	104,500	104,500	---	---
743	SFRA	Van Ness/Turk (Vanguard)	85,000	85,000	---	---
767	STATE	State Office Building	293,300	293,300	---	---
816	82.212ED	300-350 Gough (M/C)	16,000	16,000	---	---
834	82.603E	25 Van Ness (C)	101,800	42,800	36,400	36,400
3512	82.14	Van Ness Plaza	170,000	170,000	6,000	6,000
3715	82.16EC	121 Steuart	33,200	33,200	---	---
3715		141 Steuart	80,000	80,000	---	---
3717	EE79.236	101 Mission	219,350	219,350	---	---
3717	EE80.349	Spear/Main (160 Spear)	279,000	279,000	7,600	7,600
3717	82.82D	135 Main	260,000	260,000	4,000	4,000
3722	81.417ED	144 Second at Minna	30,000	30,000	---	---
3741	82.203C	201 Spear	229,000	229,000	5,200	5,200
3787	81.306	252 Townsend at Lusk	61,000	61,000	---	---
TOTAL PROJECTS UNDER CONSTRUCTION			5,985,900	5,530,950	226,300	184,660
TOTAL (ALL PROJECTS)			21,388,430	19,012,870	1,246,515	921,700

(C) = Conversion (generally industrial and/or warehouse to office)
(M) = Mixed Use (office/residential/commercial)

Source: San Francisco Department of City Planning

TABLE C-1

PROJECTS COMPLETED BEFORE 1984 But Not In Base Case Analysis

Assessor's Block	Case No.	Project Name	Office Gross Sq. Ft.			Retail Gross Sq. Ft.			Date Occupied
			Total New Construction	Net New Construction	Net New Construction	Total New Construction	Net New Construction	Net New Construction	
106	81.415ED	1299 Sansome	41,000		41,000	3,500	3,500		1983
141	81.151EV	100 Broadway	13,000		13,000	---	---		1983
163	EE81.1	901 Montgomery	63,000		63,000	18,800	18,800		1983
164	81.631D	847 Sansome	23,750		23,750	---	---		1983
164	81.251D	936 Montgomery	21,500		11,500	---	---		1983
196		736 Montgomery	40,000		40,000	---	---		1983
196	CU79.49	Pacific Lumber Co.	92,000		92,000	---	---		1983
206	81.165D	401 Washington/Battery	13,200		13,200	1,800	1,800		1983
228	81.610ED	569 Sacramento (C)	19,000		19,000	---	---		1983
237	DR80.6	353 Sacramento (Daon)	277,000		251,000	8,300	-2,000		1983
240	DR80.16	550 Kearny (Addition)	71,400		71,400	---	---		1983
263	CU79.12	101 California	1,265,000		1,257,000	24,700	-14,300		1983
287	81.550D	Sloane Building (C)	125,300		125,300	30,000	30,000		1983
292	DR79.13	Crocker National Bank	676,000		495,000	86,000	54,000		1983
312	EE79.370	50 Grant	90,000		90,000	---	---		1983
313	EE77.257	Nicman Marcus				143,000	128,000		1982
351	DR79.133	10 U.N. Plaza	92,050		92,050	---	---		1983
738	SFRA	One Flynn Center	25,000		25,000	---	---		1983
762	SFRA	Opera Plaza (M)	50,000		50,000	---	---		1983
3518	81.483V	291 10th St.	25,700		25,700	---	---		1983
3702	EE81.25	1155 Market/8th	138,700		138,700	8,800	-25,700		1983
3708	DR80.34	25 Jessie/Ecker Square	111,000		111,000	---	---		1983
3709	DR80.36	Five Fremont Center	791,200		722,200	35,000	17,300		1983
3712	DR79.11	Federal Reserve Bank	640,000		640,000	---	---		1983
3717	EE78.413	150 Spear	330,000		330,000	---	---		1983
3718	DR79.12	Pacific Gateway	335,000		335,000	7,500	7,500		1983
3724	SFRA	Yerba Buena West	335,000		335,000	---	---		1983
3732	81.548DE	466 Clementina (C)	15,150		15,150	---	---		1983
3735	SFRA	Convention Plaza	339,000		339,000	---	---		1983

TABLE C-1
(continued)

Completed But Not In Base Case Analysis (continued)

Assessor's Block	Case No.	Project Name	Office Gross Sq. Ft.		Retail Gross Sq. Ft.		Date Occupied
			Total New Construction	Net New Construction	Total New Construction	Net New Construction	
3735	SPRA	Planter's Hotel (C)	20,000	20,000	---	---	1983
3752	EE77-220	Office Bldg. (YBC SB-1)	11,000	11,000	---	---	1983
3763	81.287V	490 2nd/Bryant (C)	40,000	40,000	---	---	1983
3763	81.381	480 2nd/Stillman (C)	35,000	35,000	---	---	1983
3763	82.384EVD	400 2nd Street at Harrison (C)	71,500	49,500	---	---	1983
3776	81.693EV	539 Bryant/Zoe (C)	63,000	63,000	---	---	1983
TOTAL			6,504,450	6,188,450	367,400	227,700	

(C) = Conversion (generally industrial and/or warehouse to office)
(M) = Mixed Use (office/residential/commercial)

Source: Department of City Planning

building names or addresses, based on information obtained from regular contact with Redevelopment Agency staff. Other jurisdictions are also contacted when the cumulative list is updated: the new 293,000-square-foot State Office Building under construction at Van Ness and McAllister is included; no Federal office space is proposed in downtown San Francisco in the near future other than that at the Rincon Annex Post Office site in the Rincon Point Redevelopment Area (John Scales, General Services Administration, telephone conversation, April 11, 1984).

Hotel projects have not been included in the list because hotel uses have different peak-travel characteristics from office buildings. They generally do not significantly affect peak-hour traffic or transit and therefore do not contribute to effects such as maximum production of air pollutants (see file No. EE81.61, 135 Main Final Supplemental EIR, certified November 30, 1982, page 150). Residential projects have not been included because the few residential structures in the study area are unrelated to office uses. Residential travel in the downtown usually takes place in the contra-commute direction during peak hours and thus does not contribute to cumulative traffic or transit congestion. In addition, office trips in the p.m. peak period are assumed to be made by workers traveling to their residences. Trip generation calculated for residential uses includes persons returning to their homes after work in the p.m. peak period. Inclusion in the cumulative analysis of residential uses in downtown San Francisco would double count project-generated travel: once when employees left their office building and again when they arrived at their residence (if they lived in the downtown area).

Approximately 1.3 million square feet of office space is proposed for locations outside the greater downtown area. All but two of these projects (San Francisco Executive Park just east of U.S. 101 near the southern border of San Francisco, proposed for about 1.1 million square feet, and St. Mary's Medical Office Building on Shrader at Fulton, proposed to be about 90,000 square feet) are under 10,000 square feet. These projects are not included on the cumulative list because their impacts do not accumulate measurably with office space in the downtown area. Although the Executive Park proposal would contribute to auto traffic on U.S. 101, the critical analysis points for p.m. peak-period cumulative downtown traffic on U.S. 101 are the freeway entrances near downtown, the approaches to the Bay Bridge, and the Alemany interchange, which restricts southbound U.S. 101 traffic in the p.m. peak period. The Executive Park traffic would not contribute measurably to demands on freeway entrances near downtown or peak-period impacts on

the Alemany interchange. It is factored in as part of the traffic approaching the Bay Bridge before cumulative downtown development is added. (Executive Park DEIR, September 9, 1983. Note that an EIR was prepared in 1976 for a project on this site; following permits for four of the proposed office buildings, the developer made major changes in the project that necessitated the new EIR now in process.)

The Department's master project log contains listings for projects that are no longer active for various reasons, such as no action by project sponsor in over one year, application withdrawn by sponsor, or project proposal revised to non-office or non-retail uses (examples of these projects include 272 Sutter, approximately 65,000 square feet, withdrawn by sponsor; 2nd and Harrison, 49,000 square feet, application revised from office space to parking lot). Some of these files have not been formally closed due to higher staff priorities; however, the projects are not included on the cumulative list when staff concludes that the office project has been abandoned, withdrawn or the scope or nature of the proposal is so uncertain as to not be reasonably foreseeable.

In EIRs prepared during the latter half of 1983, the list used for cumulative analyses included a section labeled "Completed But Not in Base Case." As of the end of 1983, that list totaled over 6 million square feet of office space and about 225,000 square feet of retail space. These projects were included on earlier lists even though they were built and fully or partially occupied because some of the baseline data (measurements of the existing situation) for some transportation systems was collected in about mid-1982 and thus could not include the effects of these projects. The baseline has recently been updated to reflect 1984 for use in the Downtown Plan Draft EIR. Projects completed before 1984 are included in the updated baseline data, and appear in Table C-1 for reference purposes. Using 1984 as the existing baseline situation means that projects completed by the end of 1983 should be omitted from the list of projects used for cumulative analyses in order to avoid counting the projects twice. Because some of the baseline data previously used was collected more recently than mid-1982, list-based cumulative analyses overestimated some reported impacts by measuring the effects of office buildings as part of the baseline existing situation and by including the same office building in the calculations of future cumulative impacts. For example, PG&E is already serving office buildings completed in 1982 and 1983; including those buildings in calculations of future cumulative energy demand would count them twice. Therefore, for

some parts of the cumulative analyses, omitting projects completed in 1983 will provide more realistic predictions of future conditions.

The Department is aware of proposals by Southern Pacific Land Co. to develop property near China Basin. This area and the proposals by Southern Pacific have been called "Mission Bay." An application for environmental review was filed for the project over one year ago but was withdrawn in early 1984 and no new application has been filed. Since withdrawal of this application, members of the San Francisco Board of Supervisors have proposed that the City purchase all or portions of the property; this proposal was later dropped. In July 1984, Southern Pacific announced major revisions in its proposal reducing the scope of the development proposal. No new applications have been filed. Both the original project and the July 1984 proposal would require environmental analyses and Zoning Map and Comprehensive Plan amendments, and BCDC and possibly U.S. Army Corps of Engineers permits in addition to City approvals before any building could begin. With no application pending, and with the possibility of further revisions by the developer before submittal of any application, the Mission Bay project remains too speculative to include in any cumulative analyses.

The Department of City Planning is preparing plans and environmental analyses for several areas in or near the downtown. Because these plans involve only proposals for zoning and other land use controls, they are not properly part of any cumulative list. Although analyses for these plans sometimes predict amounts of office space that could be built in the area being studied, the predictions are for purposes of assessing impacts of the plans and in no way reflect proposed future development.

Use of the Department's list for estimating cumulative impacts builds in certain limitations. It assumes, for example, that all proposals will be built at essentially the size proposed and that all buildings, once built, will be fully occupied. It is important to note that the cumulative list has not been adjusted to reflect temporary limitations on growth imposed by the City's actions to establish a Special Use District in the South of Market area and a moratorium on new office and hotel space over 50,000 gross square feet. Nor has any adjustment been made to account for reduced building potential as proposed in the Downtown Plan (base FAR of 14:1 reduced to 10:1). Thus, the total square footages on the list of projects under formal review may be overestimated, and impacts based on the square footages may also be overestimated if some buildings are not built, not fully occupied or reduced in size.

Existing office and retail space that would be replaced by new buildings was subtracted from the proposed new construction to better approximate the impacts the new buildings would have on transportation facilities. As shown in Table C-2, net new office and retail space is less than total new construction as a result of subtracting out existing office and retail space on sites proposed for new buildings. ("Net new" space is used to refer to the amount of new construction in excess of existing space on each site in terms of gross square feet of floor space. It does not refer to net leasable or net rentable floor space.) Existing major office building construction in San Francisco is shown in Table C-3.

TABLE C-2
GROSS SQUARE FEET OF CUMULATIVE OFFICE AND RETAIL
DEVELOPMENT IN DOWNTOWN SAN FRANCISCO AS OF March 10, 1984

<u>Status of Project</u>	<u>Office (Gross Sq. Ft.)</u>		<u>Retail (Gross Sq. Ft.)</u>	
	<u>Total New Construction</u>	<u>Net New Construction</u>	<u>Total New Construction</u>	<u>Net New Construction</u>
Under Formal Review	9,744,260	8,721,295	643,265	442,590
Approved	5,658,275	4,760,625	376,950	294,450
Under Construction	<u>5,985,900</u>	<u>5,530,950</u>	<u>226,300</u>	<u>184,660</u>
Grand Totals	21,388,430	19,012,870	1,246,515	921,700

TABLE C-3
MAJOR OFFICE BUILDING
CONSTRUCTION IN SAN FRANCISCO
(In gross square feet)

<u>Year</u>	<u>Total Gross Square Feet Completed</u>	<u>5-Year Total</u>	<u>5-Year Annual Average</u>	<u>Cumulative Total of Office Buildings²</u>	<u>Cumulative Total of All Downtown Office Buildings³</u>
Pre-1960				<u>28,145,000</u>	<u>24,175,000</u>
1960	1,183,000				
1961	270,000				
1962	-				
1963	-				
1964	1,413,000				
1960-1964		2,866,000 (2,580,000) ³	573,200 (516,000) ³	30,725,000	26,754,000
1965	1,463,000				
1966	973,000				
1967	1,453,000				
1968	1,234,000				
1969	3,256,000				
1965-1969		8,379,000 (7,541,000) ³	1,675,800 (1,508,000) ³	38,266,000	34,295,000
1970	1,853,000				
1971	-				
1972	1,961,000				
1973	2,736,000				
1974	2,065,000				
1970-1974		8,615,000 (7,753,000) ³	1,723,000 (1,550,000) ¹	46,019,000	42,048,000

(continued)

TABLE C-3 (continued)

<u>Year</u>	<u>Total Gross Square Feet Completed</u>	<u>5-Year Total</u>	<u>5-Year Annual Average</u>	<u>Cumulative Total of All Office² Buildings</u>	<u>Cumulative Total of All Downtown Office³ Buildings</u>
1975	536,000				
1976	2,429,000				
1977	2,660,000				
1978	-				
1979	2,532,000				
1975-1979		8,157,000 (7,341,000) ¹	1,631,400 (1,468,000) ¹	53,360,000	49,389,000
1980	1,284,000				
1981	3,029,000				
1982	3,771,000				
1983	4,107,700				
1980-1982		12,191,700 ⁴ 10,972,500 ¹	3,047,900 ⁴ 2,743,100 ¹	64,332,500	62,100,000

¹Total net square feet (90% of gross). Net new space is added at an increase factor of 90%, since it is assumed that space equal to 10% of a new building is demolished to make land available for the new replacement building

²San Francisco Downtown Zoning Study, Working Paper No. 1, January 1966, Appendix Table 1, Part 1. For pre-1965, data include the area bounded by Vallejo, Franklin, Central Skyway, Bryant and The Embarcadero. Pre-1965 data also includes one-third of retail/office mixed use. For post-1964, data include the entire City.

³Gross floor space for downtown offices is included for the following functional areas: Financial, Retail, Hotel, Jackson Square, Golden Gateway, Civic Center, South of Market, and Outer Market Street as defined in the cited January 1966 report. For post-1964, the entire area east of Franklin Street is included.

⁴Four-year total and average.

Source: Department of City Planning, March 15, 1983

APPENDIX D

FUNDAMENTAL CONCEPTS OF ENVIRONMENTAL NOISE

This section provides background information to aid in understanding the technical aspects of this report.

Three dimensions of environmental noise are important in determining subjective response. These are:

- a. the intensity or level of the sound
- b. the frequency spectrum of the sound
- c. the time-varying character of the sound

Airborne sound is a rapid fluctuation of air pressure above and below atmospheric pressure. Sound levels are usually measured and expressed in decibels (dB), with 0 dB corresponding roughly to the threshold of hearing.

The "frequency" of a sound refers to the number of complete pressure fluctuations per second in the sound. The unit of measurement is the cycle per second (cps) or Hertz (Hz). Most of the sounds which we hear in the environment do not consist of a single frequency, but of a broad band of frequencies, differing in level. The quantitative expression of the frequency and level content of a sound is its sound spectrum. A sound spectrum for engineering purposes is typically described in terms of octave bands which separate the audible frequency range (for human beings, from about 20 to 20,000 Hz) into ten segments.

Many rating methods have been devised to permit comparisons of sounds having quite different spectra. Fortunately, the simplest method correlates with human response practically as well as the more complex methods. This method consists of evaluating all of the frequencies of a sound in accordance with a weighting that progressively and severely deemphasizes the importance of frequency components below 1000 Hz, with mild deemphasis above 5000 Hz. This type of frequency weighting reflects the fact that human hearing is less sensitive at low frequencies and extreme high frequencies than in the frequency midrange.

The weighting curve described above is called "A" weighting, and the level so measured is called the "A-weighted sound level," or simply "A-level."

The A-level in decibels is expressed "dBA"; the appended letter "A" is a reminder of the particular kind of weighting used for the measurement. In practice, the A-level of a sound source is conveniently measured using a sound level meter that includes an electrical filter corresponding to the A-weighting curve. All U.S. and international standard sound level meters include such a filter. Typical A-levels measured in the environment and in industry are shown in Figure 1.

Although the A-level may adequately describe environmental noise at any instant in time, the fact is that the community noise level varies continuously. Most environmental noise includes a conglomeration of distant noise sources which create a relatively steady background noise in which no particular source is identifiable. These distant sources may

include traffic, wind in trees, industrial activities, etc. These noise sources are relatively constant from moment to moment, but vary slowly from hour to hour as natural forces change or as human activity follows its daily cycle. Superimposed on this slowly varying background is a succession of identifiable noisy events of brief duration. These may include nearby activities or single vehicle passages, aircraft flyovers, etc., which cause the environmental noise level to vary from instant to instant.

To describe the time-varying character of environmental noise, the statistical noise descriptors L10, L50, and L90 are commonly used. The L10 is the A-weighted sound level equaled or exceeded during 10 percent of a stated time period. The L10 is considered a good measure of the "average peak" noise. The L50 is the A-weighted sound level that is equaled or exceeded 50 percent of a stated time period. The L50 represents the median sound level. The L90 is the A-weighted sound level equaled or exceeded during 90 percent of a stated time period. The L90 is used to describe the background noise.

As it is often cumbersome to describe the noise environment with these statistical descriptors, a single number descriptor called the Leq is also widely used. The Leq is defined as the equivalent steady-state sound level which in a stated period of time would contain the same acoustic energy as the time-varying sound level during the same time period. The Leq is particularly useful in describing the subjective change in an environment where the source of noise remains the same but there is change in the level of activity. Widening roads and/or increasing traffic are examples of this kind of situation.

In determining the daily measure of environmental noise, it is important to account for the difference in response of people to daytime and nighttime noises. During the nighttime, exterior background noises are generally lower than the daytime levels. However, most household noise also decreases at night and exterior noises become very noticeable. Further, most people are sleeping at night and are very sensitive to noise intrusion.

To account for human sensitivity to nighttime noise levels a descriptor, Ldn, (day-night equivalent sound level) was developed. The Ldn divides the 24-hour day into the daytime of 7 a.m. to 10 p.m. and the nighttime of 10 p.m. to 7 a.m. The nighttime noise level is weighted 10 dB higher than the daytime noise level. The Ldn, then, is the A-weighted average sound level in decibels during a 24-hour period with 10 dBA added to the hourly Leqs during the nighttime. For highway noise environments the Leq during the peak traffic hour is approximately equal to the Ldn.

The effects of noise on people can be listed in three general categories:

1. subjective effects of annoyance, nuisance, dissatisfaction
2. interference with activities such as speech, sleep, learning
3. physiological effects such as startle, hearing loss

The sound levels associated with environmental noise, in almost every case, produce effects only in the first two categories. Unfortunately, there is as yet no completely satisfactory measure of the subject effects of noise, or of the corresponding reactions of annoyance and dissatisfaction. This is primarily because of the wide variation in individual thresholds of annoyance, and habituation to noise over differing individual past experiences with noise.

Thus, an important parameter in determining a person's subjective reaction to a new noise is the existing noise environment to which one has adapted: the so-called "ambient" noise. "Ambient" is defined as "the all-encompassing noise associated with a given environment, being a composite of sounds from many sources, near and far." In general, the more a new noise exceeds the previously existing ambient, the less acceptable the new noise will be judged by the hearers.

With regard to increases in noise level, knowledge of the following relationships will be helpful in understanding the quantitative sections of this report:

1. Except in carefully controlled laboratory experiments, a change of only 1 dBA cannot be perceived.
2. Outside of the laboratory, a 3-dBA change is considered a just-noticeable difference.
3. A change in level of at least 5 dBA is required before any noticeable change in community response would be expected.
4. A 10-dBA change is subjectively heard as approximately a doubling in loudness, and would almost certainly cause an adverse change in community response.

Source: Charles M. Salter Associate, Inc., November, 1982

A-WEIGHTED SOUND PRESSURE LEVEL, IN DECIBELS

	140	
	130	THRESHOLD OF PAIN
CIVIL DEFENSE SIREN [100']	120	
JET TAKEOFF [200']	110	
RIVETING MACHINE	100	ROCK MUSIC BAND
	90	PILE DRIVER [50']
DIESEL BUS [15']	80	AMBULANCE SIREN [100']
BAY AREA RAPID TRANSIT TRAIN PASSBY [10']	70	BOILER ROOM PRINTING PRESS PLANT
PNEUMATIC DRILL [50'] SF MUNI LIGHT RAIL VEHICLE [35']	60	GARBAGE DISPOSAL IN HOME [3'] INSIDE SPORTS CAR [50 MPH]
FREIGHT CARS [100'] VACUUM CLEANER [10'] SPEECH [1']	50	DATA PROCESSING CENTER DEPARTMENT STORE
AUTO TRAFFIC NEAR FREEWAY	40	PRIVATE BUSINESS OFFICE LIGHT TRAFFIC [100']
LARGE TRANSFORMER [200'] AVERAGE RESIDENCE	30	TYPICAL MINIMUM NIGHTTIME LEVELS-RESIDENTIAL AREAS
SOFT WHISPER [5']	20	
RUSTLING LEAVES	10	RECORDING STUDIO
THRESHOLD OF HEARING	0	MOSQUITO [3']

[100']-DISTANCE IN FEET BETWEEN SOURCE AND LISTENER

TYPICAL SOUND LEVELS MEASURED IN THE ENVIRONMENT AND INDUSTRY

APPENDIX E
EMPLOYMENT AND HOUSING FACTORS

Revised

TABLE E-1

**PROJECTED EFFECTS OF DOWNTOWN OFFICE DEVELOPMENT
ON REGIONAL HOUSING MARKETS**

Housing Market	Net Project Demand in 1985	Gross Cumulative Demand ³ 1982 to 1990		Net ⁴ Housing Stock 1982-1990	Project Demand as % of Growth 1983-1990	Cumulative Demand as % of Growth 1982-1990
	Number of Households	Number of Employees	Number of Households			
San Francisco ¹	103-213	11,400 to 30,400	8,100 to 16,900	12,000	0.9-1.8	68-141
North Bay ² (Marin and Sonoma Counties)	66	6,800	5,200	36,800	0.2	14
Peninsula ² (San Mateo and Santa Clara Counties)	96	9,900	7,600	87,600	0.1	9
East Bay ² (Alameda and Contra Costa Counties)	281	28,900	22,200	111,800	0.3	20
TOTAL ⁵	656	76,000	51,900	248,200	0.3	21

¹The range of San Francisco employees and households is based on a report prepared by Recht Hausrath Associates, referenced as Appendix C in the 101 Montgomery Street Final EIR, EE 80.26, certified May 7, 1981 (15-30% of all employees would reside in San Francisco and 1.4 workers would occupy each household) and Office Housing Production Program (OHPP) Interim Guidelines, Department of City Planning, January 22, 1982 (40% of all employees would reside in San Francisco and 1.8 workers would occupy each household).

²Distribution of employees is based on the Department of City Planning's Guidelines for Environmental Review: Transportation Impacts, September 1983, page 13. The percentages have been weighted to account for OHPP Guidelines (i.e., 40% of employees reside in San Francisco) as follows: 9% in the North Bay, 13% on the Peninsula, and 38% in the East Bay. The net project household demand is based on net new office workers and an average of 1.3 workers per household, based on 1980 Census Data.

³Cumulative housing demand calculated from data on office projects presented in Table E-2, Appendix E, including those under construction (5,530,950 sq.ft.), approved (4,760,625 sq. ft.), or under formal review (8,721,295 sq. ft.)

⁴Net housing stock growth is based on Association of Bay Area Governments, Projections 79, January 1980. Projections contained in that document for 1980-1990 were prorated to reflect 1982-1990 net housing stock growth.

⁵The total reflects the high end of the range for San Francisco housing demand. If the low end of the range occurs in San Francisco, then the housing demand in other areas would be higher than shown in the table, since the total housing demand will remain constant regardless of the regional distribution.

TABLE E-2
HOUSING AFFORDABILITY BY HOUSEHOLD INCOME

Gross Annual Income Per Household or Per Individual	Maximum Affordable Monthly Housing ¹ Expenditure	Housing Cost and Type of Unit	
		Monthly ² Cost	Type of Unit (Price)
\$ 5,000	\$ 125		
8,300 ³	208		
10,000	250		
10,680	267	\$ 267	Census Median Rent ⁶
11,560	289	289	Studio Apartments ⁷
15,000	375		
18,200	455	455	Median Rent, All Units ⁷
20,000	500		
23,520	588	588	Rent, 3+ Bedroom Units ⁷
25,000 ⁴	625		
27,300	683		
30,000	750		
35,000	875		
40,000	1,000		
40,880	1,022	1,022	Lowest House Price (\$95,000) ⁸
45,000	1,125	1,125	Census Median Value (\$104,600) ⁶
50,000	1,250		
52,560	1,314		
55,000	1,375		
65,080	1,627	1,627	Median House Price (\$151,203) ⁸
101,880	2,547	2,547	Highest House Price (\$236,750) ⁸
370,800 ⁵	7,500		

Footnotes on following page

TABLE E-2
(continued)

¹The Office Housing Production Program (OHPP) Interim Guidelines, January 1982, define affordable housing as follows:

Rental expenses not exceeding 30% of gross monthly income, adjusted for family size; and home ownership expenses not exceeding 38% of gross monthly income, adjusted for family size, including mortgage payments, property taxes, insurance, and/or homeownership association dues.

For the purpose of this table, 30% of gross monthly income is used to calculate housing affordability for both renters and owners. For owners it is assumed that 8% of gross monthly income would cover property taxes, insurance, and/or homeownership association dues and other related expenses. No adjustment has been made for family size because family circumstances vary widely.

²Monthly housing costs refer to rents and mortgage payments for the housing prices shown in parentheses; sources of rents and house prices are as footnoted. Monthly costs of ownership housing were calculated as monthly mortgage expenses assuming 20% down payment, 30-year mortgage, and 16% interest rate, not including insurance, property taxes, and other related housing costs.

³U.S. Bureau of Labor Statistics, Area Wage Survey for the San Francisco-Oakland, California Metropolitan Area, March 1981. \$8,300 was the mean 1980 income of inexperienced file clerks, one of the lowest-paid office occupations listed. This value has been inflated to \$10,260 in 1983 dollars using the Consumer Price Index for all urban consumers in the San Francisco-Oakland Standard Metropolitan Statistical Area (SMSA).

⁴The \$27,300 income figure was derived by inflating the \$16,300 median income of downtown office workers from the 1974 SPUR survey through December 1981 by 67% using U.S. Bureau of Labor Statistics national wage information for nonsupervisory finance, insurance, and real estate sector employees through December 1981, and the Consumer Price Index thereafter.

⁵Montgomery-Washington Building FEIR, 81.104E, certified January 28, 1982. The median salary of wage earners at 601 Montgomery Street was estimated to be \$52,560 and the highest salary for corporate officers \$300,000, according to a 1981 survey.

⁶City Planning and Information Services, 1980 Census Information, March 1982. Rental data include residential hotels whose rent levels may be substantially lower than other types of rental dwellings and may therefore have an effect on the median rent.

⁷Department of City Planning, Rent Survey, 1980. These data are based on a small nonrandom sample of newspaper ads and may not reflect true rental costs.

⁸San Francisco Board of Realtors, Multiple Sales Service, October 5, 1981. (Annual data on housing sales prices including all homes sold from February 11, 1981 to October 1, 1981.)

NOTE: The age of the 1974 SPUR study referenced in Footnote 4 above and the small sample size of the 601 Montgomery Street survey referenced in Footnote 5 limit the statistical accuracy of the data when applied to individual proposed office projects. These two sources constitute the only salary information available for downtown San Francisco employees.

APPENDIX F

AIR QUALITY

SAN FRANCISCO AIR POLLUTANT SUMMARY 1979-1983¹

Pollutant	Federal ² Standard	State ³ Standard	1979	1980	1981	1982	1983
<u>Carbon Monoxide (CO)</u>							
1-hour average (ppm) Highest hourly average No. of exceedances	35	20	20 0	10 0	8 0	-- 0	-- 0
8-hour average (ppm) Highest 8-hour average No. of exceedances	9	9	13.8 1	7.5 0	5.3 0	9 1	5.1 0
<u>Ozone (O₃)</u>							
1-hour average (ppm) Highest hourly average No. of exceedances	.12 ⁴	.10	0.08 0	0.09 0	0.07 0	.08 0	.13 1
<u>Nitrogen Dioxide (NO₂)</u>							
1-hour average (ppm) Highest hourly average No. of exceedances	None	.25	0.16 4	0.17 0	0.11 0	.13 0	.13 0
<u>Sulphur Dioxide (SO₂)</u>							
24-hour average (ppm) Highest 24-hour average No. of exceedances	.14	.05	0.034 0	0.018 0	0.016 0	.012 0	.018 0
<u>Total Suspended Particulate (TSP)</u>							
24-hour average (ug/m ³) Highest 24-hour average No. of exceedances	260	100	117 1	173 6	103 1	106 3	117 4

APPENDIX F (continued)

SAN FRANCISCO AIR POLLUTANT SUMMARY 1979-1983¹

Pollutant	Federal ² Standard	State Standard ³	1979	1980	1981	1982	1983
Annual Geometric Mean ($\mu\text{g}/\text{m}^3$) ⁵	75	60					
Annual Geometric Mean			42.0	52.1	56.0	57.0	55.0
Annual Exceedances			No	No	No	No	No
<u>Lead</u>							
3-month Average (mg/m^3)	1.5	None					
Highest 3-month average			0.95	0.53	0.35	---	---
No. of exceedances			0	0	0	---	---
1-month Average (mg/m^3)	None	1.5	---	---	---	---	---
No. of exceedances	---	---	---	---	---	---	---

¹1979 data collected at 939 Ellis Street. 1980-81 data collected at 900 23rd Street.

²Federal standard is not to be exceeded more than once per year. Annual average standards are not be exceeded.

³State standards are not to be equalled or exceeded. The State 1-hour average CO standard was reduced from 40 ppm to 20 ppm in 1982.

⁴The federal standard is given in terms of Expected Annual Excesses which is based on a 3-year running average.

⁵The annual Geometric Mean is a single number which applies to an entire year of data. "No" indicates TSP concentrations did not exceed 60 ($\mu\text{g}/\text{m}^3$).

Note: ppm = parts per million
 $\mu\text{g}/\text{mg}^3$ = micrograms per cubic meter
 mg/m^3 = milligrams per cubic meter

Source: BAAMQD, Air Pollution in the Bay Area by Station and Contaminant, March issues, 1980-1984; and California Air Resources Board, California Air Quality Data, Annual Summaries, 1979-1982.

● APPENDIX G
MICROCLIMATE IMPACT STUDY
299 SECOND STREET PROJECT

I. INTRODUCTION

The 299 Second Street project was previously evaluated for wind impacts. Since this analysis was prepared, Section 148 of the Planning Code has been adopted, with its own wind analysis methodology and criteria. This report describes a re-analysis of the wind impacts of the proposed project using the methodology and criteria of the Section 148 of the Planning Code.

This report summarizes the results of wind tunnel tests performed on a scale model of the project and its surroundings to predict wind levels near the project site. Tests were conducted for the existing site and for the site with the proposed development, including approved construction and building currently under construction.

II. SUMMARY

Wind tunnel tests were conducted for wind on the project site in its current condition (and approved projects in the vicinity) and with the proposed project in relation to the Section 148 wind performance criteria (adopted by the City Planning Commission on November 29, 1984).

Wind tunnel measurements were used to predict equivalent mean wind speed near the proposed project site. These mean wind speeds were compared to comfort criteria, based on the onset of uncomfortable physical effects of the wind, of 11 mph for pedestrian areas and 7 mph for sitting areas. Section 148 also includes a pedestrian hazard criterion of 26 mph.

The wind tunnel test of the project area indicates that existing winds do not exceed the 11 mph pedestrian comfort criterion established in Section 148 of the Planning Code. The project would cause wind speeds to increase at 1 of the 23 sidewalk locations monitored (by one mph), to decrease at ten locations (by between 1 and two mph), and to remain the same at 12 locations. Within the outdoor eating and sitting areas along Second Street and Folsom Street winds would range from 5 to 6 mph, below the 7 mph criterion of the Downtown Plan. Neither existing winds or winds with the proposed project would exceed the pedestrian hazard criterion.

III. METHODOLOGY

Tests were performed on a 1 inch = 30 feet scale model of the project site and surrounding several blocks. All proposed, approved and under-construction buildings within the area modeled were included. Tests were conducted in Environmental Impact Planning Associates' boundary layer wind tunnel in San Francisco. The tunnel has a cross-section seven-feet wide by five-feet high, and has a total length of 60 feet. Speeds within the tunnel can be varied from approximately 3 to 12 mph.

Visualization of the flow was performed by releasing flood-lit smoke near the model. Wind speeds were measured at 26 locations near and within the project site. Measurements were made with a hot-film probe and a constant temperature anemometer, an instrument that electronically relates heat loss from the probe to wind speed. Mean windspeeds and the turbulence intensity measured over the model were related statistically to real-world winds by comparing measured winds to the free-stream wind above the model.

Winds were tested for four wind directions: northwest, west-northwest, west and west-southwest. The wind direction was varied by rotating the model within the wind tunnel to simulate the desired wind direction.

IV. CRITERIA

Wind conditions partly determine pedestrian comfort on sidewalks and in other public areas. In downtown areas, high-rise buildings can redirect wind flows around buildings and divert winds downward to street level; each can result increased wind speed and turbulence at street level.

The comfort of pedestrians varies under different conditions of sun exposure, temperature, clothing, and wind speed. Winds up to four mph have no noticeable effect on pedestrian comfort. With winds from four to eight mph, wind is felt on the face. Winds from 8 to 13 mph will disturb hair, cause clothing to flap, and extend a light flag mounted on a pole. For winds from 19 to 26 mph, the force of the wind will be felt on the body. At 26 mph to 34 mph wind, umbrellas are used with difficulty, hair is blown straight, there is difficulty in walking steadily, and wind noise is unpleasant. Winds over 34 mph increase difficulty with balance and gusts can blow people over.¹

In order to provide a comfortable wind environment for people in the Downtown, Section 148 of the Planning Code establishes an equivalent (includes the effects of turbulence) windspeed (as defined in the code) of seven and 11 mph as comfort criteria and 26 mph as a wind hazard criterion. Section 148 sets comfort levels of seven mph equivalent wind speed for public seating areas and 11 mph equivalent wind speed for areas of substantial pedestrian use. New buildings and additions to buildings may not cause ground level winds that would exceed these levels more than 10% of the time between 7:00 a.m. and 6:00 p.m. year round.² If existing wind conditions exceed the comfort level, new buildings and additions shall be designed to reduce ambient wind speeds to meet the requirements.

V. ANALYSIS

The mean wind speeds at street level were determined by a wind tunnel test, and a comparison of the test results with statistically representative records of wind data collected atop the Old Federal Building. Data describing the speed, direction and frequency of occurrence of winds were gathered at the Old Federal Building, at 50 United Nations Plaza, during the six-year period 1945 to 1950. Hourly measurements have been

tabulated for each month (averaged over the six years) in three-hour periods using seven classes of wind speed and 16 compass directions. Analysis of these data shows that during the hours from 6:00 a.m. to 8:00 p.m., about 62% of the winds blow from three of the 16 directions, as follows: northwest (NW), 10%; west-northwest (WNW), 14%; west (W), 35%; west-southwest (WSW), 2%; calm conditions occur 2% of the time.

Each wind tunnel test measurement results in a ratio that relates the speed of ground-level wind to the speed at the reference elevation, in this case the height of the old San Francisco Federal Building. The wind that is measured is an equivalent wind speed value which is adjusted to include the level of gustiness or turbulence present.

The frequency with which a particular wind velocity is exceeded at any test location is then calculated by using the measured wind tunnel ratios and a specified ground speed to determine the corresponding reference wind speed for each direction. In general, this gives different reference speeds for each direction (NW, WNW, W, WSW, and Other). The wind data for San Francisco are then used to calculate the percentage of the time each reference speed would be exceeded. The sum of these is the total percentage of the time that the specified ground-level wind speed would be exceeded. A computer is used to calculate the total percentages for a series of wind speeds until the speed corresponding to the speed exceed 10% of the time is found. Throughout the following discussion, the wind speeds reported refer to the equivalent wind speeds that would be exceeded 10% of the time.

The results of the wind tunnel analysis are presented in tabular form in Figure G-1. The values presented are the estimated wind speeds that would be exceeded 10% of the time between the hours of 7:00 a.m. and 6:00 p.m. on an annual basis. The 10% exceeded wind speeds range from 5 to 8 mph for the existing site. For the proposed project, wind speeds would range from 4 to 8 mph. The 11 mph wind criterion is not currently exceeded near the project site, nor would the 26 mph hazard criterion be exceeded. The project would generally reduce winds along street areas adjacent the site. Winds would increase at one measurement location, decrease at 10 and remain unchanged at 12 of the 23 sidewalk measurement locations. The hazard criterion would not be exceeded anywhere near the site. Measurements were also made within the eating and sitting areas within the site along the Second Street and Folsom Street frontages of the site. Winds within these

covered and partially enclosed spaces would range from 5 to 6 mph equivalent mean wind speed, below the 7 mph criterion of the Planning Code.

The windspeed ratios, as derived from wind tunnel measurements, are shown in Table G-1.

¹ Lawson, T.V., and A.D. Penwarden 1976, "The Effects of Wind on People in the Vicinity of Buildings", Proceedings of the Fourth International Conference on wind Effects on Buildings and Structures, London, 1975, Cambridge University Press, Cambridge, U.K., 605-622.

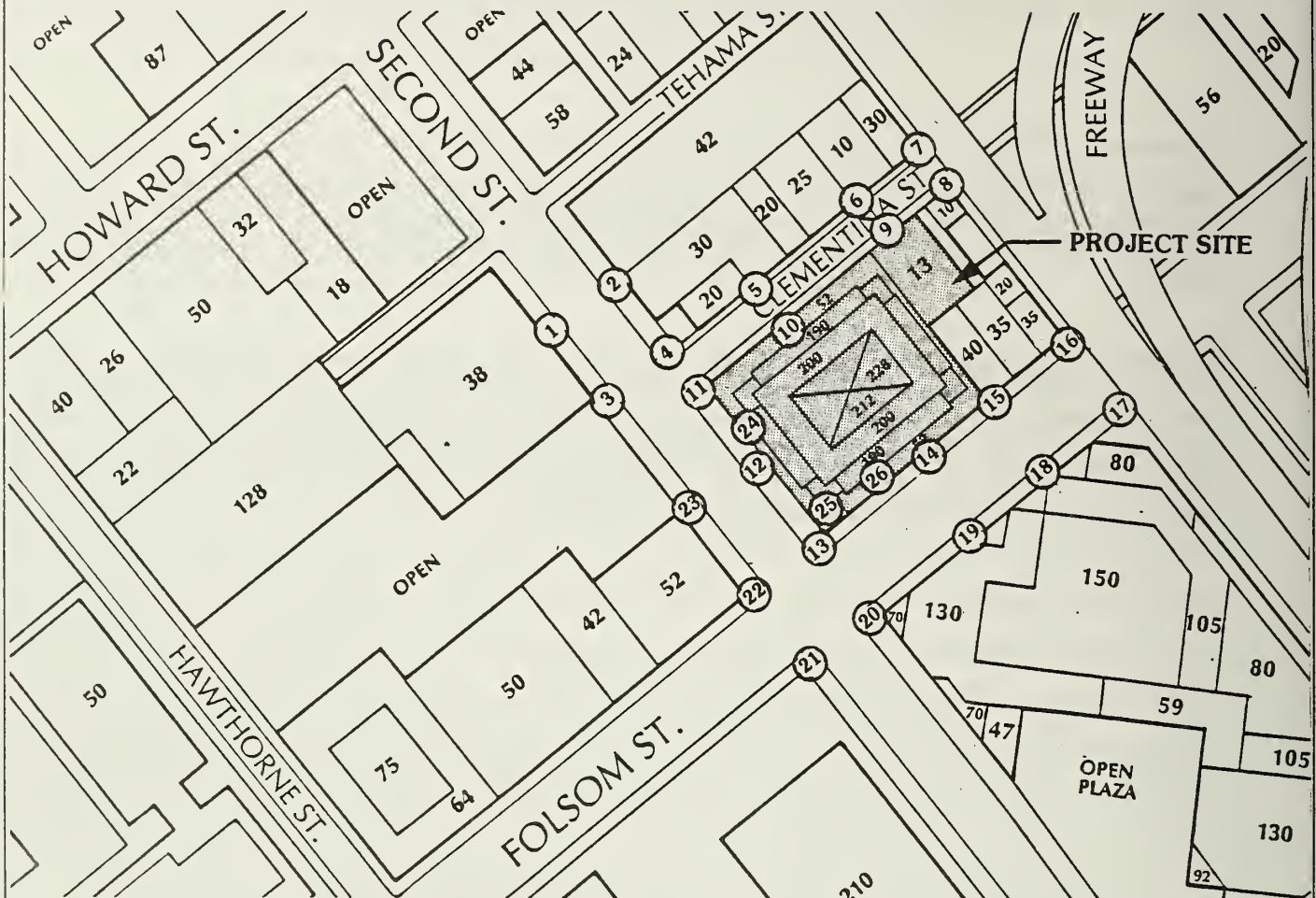
² Section 148 of the Planning Code specifies the hours of 7:00 a.m. to 6:00 p.m. The available weather data that cover that interval cover the hours of 6:00 a.m. to 8:00 p.m. Thus, observations from two additional evening hours and one additional morning hour are included in these data. Because, in general, winds are stronger in the afternoon and evening than in the morning, this approximation is conservative; it is likely to overestimate the existing and projected wind speeds.

EQUIVALENT MEAN WIND SPEED EXCEEDED 10% OF THE TIME ANNUALLY, IN MILES PER HOUR

FIGURE G-1

SOURCE: EIP ASSOCIATES

FEET
0 25 50 100



Loc.	Existing & Approved	Existing, Approved & Project	Loc.	Existing & Approved	Existing, Approved & Project
1	6	6	14	7	6
2	7	7	15	5	5
3	6	6	16	5	5
4	8	7	17	5	5
5	7	5	18	6	5
6	6	4	19	5	6
7	5	4	20	7	7
8	5	5	21	7	7
9	8	7	22	7	7
10	7	4	23	5	5
11	7	6	24	-	5
12	8	8	25	-	6
13	8	7	26	-	5

Source: EIP Associates

Section 148 of the Planning Code establishes wind criterion of 11 mph for pedestrian areas, and 7 mph for sitting areas. In the above table, locations exceeding the appropriate criterion are underlined.

Section 148 also establishes a hazard criterion of 26 mph for 1 hour annually. Locations exceeding this criterion are followed by an asterisk.

TABLE G-1
WIND SPEED RATIOS (WITH RESPECT TO THE OLD FEDERAL BUILDING)
AS DERIVED FROM WIND TUNNEL MEASUREMENTS
(MEASUREMENT LOCATIONS SHOWN IN FIGURE 1)

Location	Existing				Project			
	NW	WNW	W	WSW	NW	WNW	W	WSW
1	0.384	0.358	0.188	0.112	0.384	0.368	0.168	0.108
2	0.396	0.358	0.278	0.176	0.388	0.358	0.284	0.176
3	0.358	0.298	0.232	0.396	0.358	0.298	0.116	0.414
4	0.320	0.308	0.396	0.320	0.362	0.312	0.362	0.298
5	0.030	0.180	0.396	0.470	0.188	0.172	0.264	0.434
6	0.210	0.222	0.358	0.362	0.206	0.204	0.174	0.358
7	0.270	0.226	0.184	0.338	0.158	0.226	0.184	0.346
8	0.232	0.264	0.264	0.358	0.232	0.260	0.264	0.358
9	0.236	0.320	0.414	0.422	0.188	0.282	0.346	0.372
10	0.244	0.298	0.362	0.508	0.146	0.232	0.172	0.396
11	0.354	0.184	0.376	0.432	0.312	0.320	0.226	0.338
12	0.432	0.346	0.432	0.264	0.388	0.298	0.418	0.358
13	0.358	0.320	0.432	0.376	0.312	0.282	0.198	0.302
14	0.202	0.244	0.346	0.432	0.274	0.232	0.308	0.362
15	0.198	0.188	0.244	0.320	0.252	0.206	0.264	0.358
16	0.298	0.132	0.226	0.338	0.298	0.132	0.226	0.338
17	0.316	0.146	0.226	0.380	0.312	0.146	0.264	0.380
18	0.200	0.282	0.264	0.350	0.324	0.270	0.222	0.350
19	0.206	0.274	0.264	0.338	0.282	0.262	0.264	0.320
20	0.312	0.350	0.324	0.320	0.312	0.350	0.320	0.338
21	0.358	0.328	0.312	0.282	0.358	0.320	0.312	0.282
22	0.312	0.298	0.338	0.226	0.324	0.282	0.358	0.226
23	0.376	0.282	0.150	0.300	0.358	0.260	0.150	0.300
24	-	-	-	-	0.340	0.250	0.122	0.179
25	-	-	-	-	0.270	0.250	0.247	0.290
26	-	-	-	-	0.320	0.275	0.200	0.275

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APPENDIX H

RATED BUILDINGS DEMOLISHED IN THE C-3 DISTRICT, 1979 THROUGH OCTOBER 1982

BUILDINGS TOTALLY DEMOLISHED:

<u>Block/Lot</u>	<u>Name</u>	<u>Address</u>	<u>Heritage /DCP Rating</u>
237/15	White & Co. Building	280 Battery Street	B/-
289/4	Holbrook Building	585 Sutter Street	B/3
329/2	Sommer & Kaufmann Building	828 Market Street	A/3
3709/4	Yawman-Erbe Building	50 Fremont Street	B/-
329/2A	Hart, Schaffner & Marx Building	840 Market Street	B/-
3709/7	—	400-418 Mission Street	C/-
3709/10	Golden Gate Building	51-63 First Street	C/-
292/6	Thomson & Orman Building	110-116 Kearny Street	C/-
292/8	White Building	120-130 Kearny Street	B/-
292/4	Foxcroft Building	68-82 Post Street	B/-
237/16	—	353 Sacramento Street	B/-
288/5	—	109-123 Montgomery St.	C/-
288/4	Wilson Building	125-129 Montgomery St.	C/-
288/3	—	133-137 Montgomery St.	C/-
288/2	Steil Building	141 Montgomery Street	B/-
263/2	Oceanic Building	Two Pine Street	B/-
263/4	Kirkham Building	64-70 Pine Street	C/-
263/5	—	124 Front Street	C/-
263/6	—	136 Front Street	C/-
263/7	Isuan Building	140 Front Street	C/-
263/8	Commercial Building	146-150 Front Street	C/-
313/14	City of Paris	199 Geary Blvd.	A/-
313/15	Whitney Building	133-153 Geary Blvd.	B/-
295/7	Fitzhugh Building	364-384 Post Street	A/-
3712/25	Young Building	101-105 Market Street	B/-
3712/-	Lincoln Hotel	115-121 Market Street	C/-
3712/-	—	125-131 Market Street	C/-
3712/-	—	9-23 Main Street	C/-

BUILDINGS TOTALLY DEMOLISHED: (cont'd)

<u>Block/Lot</u>	<u>Name</u>	<u>Address</u>	<u>Heritage /DCP Rating</u>
269/2	--	334 Bush Street	C/-
269/2A	--	344 Bush Street	C/-
3703/66	Forest Building	1053-1055 Market St.	C/-
223/32	Powell Cinema	35-41 Powell Street	C/-
208/2	--	643 Montgomery Street	C/-
3724/14	--	820 Howard Street	-/3

BUILDINGS PARTIALLY DEMOLISHED:

289/31	Anglo & London Paris Bank	One Sansome Street	A/5
239/12	A. Borel & Co. Building	440 Montgomery Street	A/-
239/14	Italian American Bank	460 Montgomery Street	A/-

SOURCE: Landmarks Preservation Advisory Board and Roger Owen Boyer & Associates
